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ABSTRACT

This handbook provides program planners in vocational education with self-paced instruction in the framework of a problem-solving approach to program improvement. (The process can be applied to vocational school administration and management, student services, staff development, and instructional program areas.) Section 1 is a brief overview of the problem-solving process and identifies 12 milestones. Sections 2-5 are devoted to the four major phases of the program improvement process: needs assessment, search and selection, implementation, and evaluation. The format of each section follows a similar pattern: objective and purposes, initial background information, profile of a hypothetical area vocational school and case study materials, the learning experiences that include the milestones (in a more detailed form of checklist) and the detailed learning activities, and supplementary resources (such as informative material, additional references, additional readings). Section 6, Summary, contains the 12 milestones and related checklist. The appendix is Tools for Educational Change: Twenty-Eight Techniques for Implementing Innovations, in which each technique is discussed in terms of advantages and disadvantages regarding product, client, and advocate, and advice is offered for realistic, active use of each technique. (YLB)

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Leadership Training Series No. 63

PROBLEM-SOLVING PROCESS: A PLANNER'S HANDBOOK FOR PROGRAM IMPROVEMENT

written by

Carol P. Kowle
Research Specialist

and

Jay Smink
Senior Research Specialist
The National Center for Research in Vocational Education

and

Peg Stank
Pennsylvania Department of Education

The National Center for Research in Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

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FOREWORD

Problem-Solving Process: A Planner's Handbook for Program Improvement presents detailed information on the four major phases in the program improvement process: needs assessment, search and selection, implementation, and evaluation. Its primary purpose is to provide vocational educators with self-paced instruction in the framework of a problem-solving approach to program improvement. It is intended to provide both a general awareness and practical applications of the overall process.

Following a nationwide expression of a need and interest in program improvement activities, this handbook was developed specifically for program planners to use in implementing innovative vocational education programs.

The profession is indebted to Dr. Carol P. Kowle, Dr. Jay Smink, and Dr. Peg Stank for their scholarship in preparing this handbook. Dr. Stephen Preston of the Georgia State Department of Education, Carolyn Trohoski of Research and Information Services for Education, and Carol Spencer and David Greer of the National Center for Research in Vocational Education also contributed to the development of the paper through their critical review of the manuscript. Additional staff who contributed to the project were Shelley Grieve, Raymond E. Harlan, Dr. Judith Samuelson, and Dr. Robert Bhaerman. Editorial assistance was provided under the direction of Janet Kiplinger of the National Center's Field Services staff.

Robert E. Taylor
Executive Director
The National Center for Research
in Vocational Education

EXECUTIVE SUMMARY

The purpose of this handbook is to provide program planners in vocational education with self-paced instruction in the framework of a problem-solving approach to program improvement. The process can be applied to vocational school administration and management, student services, staff development, and instructional program areas. It is intended to provide the user with a general awareness as well as some practical applications of the program improvement process.

The program improvement process has four major phases: needs assessment, search and selection, implementation, and evaluation. A section of the paper is devoted to each of these four broad areas. In addition, the following twelve specific milestones are identified: (1) the priorities and goals of the school district are identified and/or developed, (2) the school district commits itself to participate in the process, (3) a target area of need is identified, (4) specific needs are identified in the target area, (5) a detailed needs summary is prepared for the target problem area, (6) alternative products and practices are identified, (7) products and practices are selected for installation, (8) the implementation plan for the products and practices selected is produced and approved, (9) the evaluation design is completed in order to assess the effectiveness of the products and practices, selected, (10) products and practices are installed, (11) products and practices are evaluated, and (12) further program management decisions are made.

Concrete learning experiences are very visible in the handbook. These experiences provide the user with a planned sequence of learning activities designed to lead to the achievement of the overall objective, namely, to apply the program improvement process in an actual school setting. Certain components often included in handbooks of this type are background information concerning specific competencies and opportunities to practice or apply the competencies. Both of these elements are included.

The format of each section follows a similar pattern and includes the following features: initial background information; the profile of a hypothetical area vocational school and case study materials; and the learning experiences that include the milestones (in a more detailed form of checklists), the detailed learning activities, and supplementary resources.

SECTION I

THE PROBLEM-SOLVING PROCESS: A BRIEF OVERVIEW

General Purposes of the Handbook

A major goal of vocational education is to provide high-quality programs that lead to the successful placement of students in training-related employment. Hence, federal, state, and local administration of vocational education has focused on improving both the instructional quality and the organizational structure that supports these programs.

The purpose of the handbook, therefore, is to provide program planners with self-paced instruction in a problem-solving approach to program improvement. The process can be applied to area vocational school administration and management, student services, and staff development, as well as to instructional programs. In essence, the handbook is intended to provide the user with a general awareness, as well as some practical applications, of the program improvement process. The intent is that the program planner, working with the suggestions provided here, will be able to "work through" the entire procedure. While each of the major areas can be—and has been—treated in greater depth elsewhere, the purpose of this handbook is to present a panoramic view of the process. The expectation is that the user will explore the suggested resources for additional materials when in-depth knowledge is desired.

While the handbook can be used alone, it is more desirable to use it in a workshop setting with an experienced leader to provide additional examples.

Specific Behavioral Objectives

The specific behavioral objectives relating to use of the handbook are as follows:

- "Terminal" Objective

  After completing these readings and activities, the program planner will have the knowledge and skills to apply the problem-solving process in an actual school setting.

- Five "Enabling" Objectives

  1. After completing this brief overview, the program planner will have a general knowledge of the sequence of activities in the problem-solving process.

  2. After completing the needs assessment section, the program planner will be able to identify the educational needs of the area vocational school described in the case study and complete a general needs statement and a needs assessment summary chart.

3. After completing the search and selection section, the program planner will be able to use selection criteria to select a career awareness program to be implemented in the area vocational school described in the case study.

4. After completing the implementation section, the program planner will be able to complete a plan for the implementation of a new career awareness program in the area vocational school described in the case study.

5. After completing the evaluation section, the program planner will be able to complete an evaluation design to assess the effectiveness of the new career awareness program implemented in the area vocational school described in the case study.

The Four Major Phases

The problem-solving process has four major phases: needs assessment, search and selection, implementation, and evaluation.

As illustrated in figure 1, the process is "triggered" by needs assessment activities. These procedures are intended to analyze the gap between the current status of achievement of the school's specified goals and the level of achievement that is desired for each goal. As a result of the assessment, a target area with a high priority need for improvement is identified and detailed information specific to the area is summarized.

The information from the assessment is used to focus the search and selection phase. During this phase, various resource pools (e.g., state and national listings of products, commercial vendors, other area vocational schools, and research and development centers) are searched to identify products and practices that appear to match the needs in the target area. The products identified are then screened and rated, by using specific criteria or standards from the needs assessment, in order to select the best one or more for use in improving the target area.

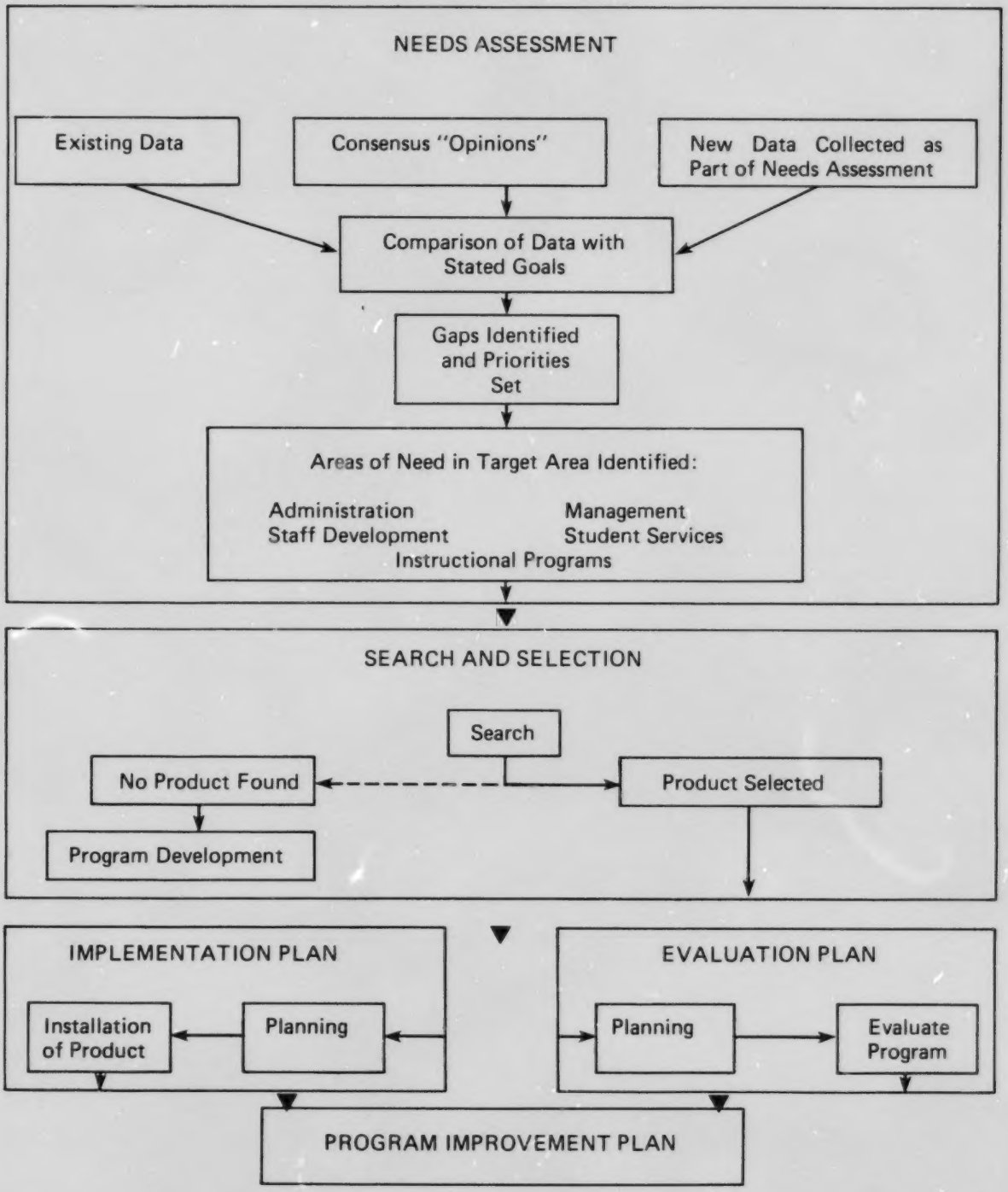
Once a product is selected, the implementation phase begins. A detailed plan for installing the product or practice is written. This includes the major activities needed to install the new product or practice.

The evaluation phase relates directly to implementation. An evaluation procedure is designed for each major implementation activity. The design assesses the quality of the actual implementation and the effectiveness of the new product or practice in improving the target area. The implementation plan and evaluation plan together become the "program improvement plan."

Figure 1 displays the essence of the process. As illustrated in the figure, an alternative procedure is followed if an acceptable product or practice cannot be identified for use. In this case, the school would be likely to plan and follow a program development phase that would allow school staff to design and develop their own innovative program to meet their needs. This alternative could take many formats but should end with implementation and evaluation plans.

FIGURE 1

A BRIEF OVERVIEW OF THE PROBLEM-SOLVING PROCESS



Twelve Milestones

Because the problem-solving process appears to be sequential, a number of salient points can be identified. The term used to describe these key items is *milestones*. The twelve milestones listed below refer to the critical events that should occur in order to ensure success as a school progresses through the structured procedure. Each milestone, although of major importance itself, is further broken down into more specific checkpoints or steps that are addressed in detail in the text. (Note: the term *school*, in this sense, is used to describe the team of school representatives who are assigned or who volunteer to complete the process.) The twelve milestones are as follows:

- Preliminary Activities

1. The priorities and goals of the school district are identified and/or developed.
2. The school district commits itself to participate in the process.

   (Note: All of the school-level milestones below relate to the priority areas identified at the district level.)

- Needs Assessment

3. Target area of need is identified.
4. Specific in-depth needs are identified in the target area.
5. A detailed needs summary is prepared for the target problem area.

- Search and Selection

6. Alternative products and practices are identified.
7. Products and practices are selected for installation.

   (Note: Alternative—If all products or practices are rejected, the school will need to enter a program development phase.)

- Implementation

8. The implementation plan for the products and practices selected is prepared and approved.

- Evaluation

9. The evaluation design is completed in order to assess the effectiveness of the products and practices selected.
10. Products and practices are installed.
11. Products and practices are evaluated.
12. Further program management decisions are made.

Throughout the handbook, these twelve milestones—beginning with milestone three—are presented in great detail. Before they are addressed, however, it is critical to consider milestones one and two. These two preliminary activities are absolutely essential to the success of the process. They are presented in order to remind program planners that the broad priorities of the school district must be identified. If such priorities are not explicit, they should be made so. The general *target areas of need*, a term used throughout this handbook, must be visible. The second point simply is that commitment of the school district also must be explicit. Without this "up front" commitment, the rest of the activities will be merely "busy work."

A Tool for Program Planners

As indicated, we have selected the format of a handbook for a very simple reason. There is a great deal of material, some of which is very extensive, that already exists for program planners. After much consideration and discussion with practitioners, it was our feeling that a relatively concise but comprehensive tool was necessary, so that vocational school personnel could readily get a "handle" on this important process. The handbook, therefore, represents a synthesis of a number of valuable—and recommended—resources that have been developed nationwide and that are available to the work teams described in this guide.

In this regard, we are indebted to those who have done previous work in this area through the Research and Development Utilization program (RDU) of the National Institute of Education. The RDU, a demonstration effort to disseminate educational materials, was aimed at helping schools clarify and solve local problems. Several projects supported by the RDU program were particularly relevant, e.g., the Pennsylvania School Improvement Program, the Georgia RDU Program, the Network System, and the Michigan Career Education Dissemination Project.

The authors of this handbook do indeed look upon this guide as a tool for program planning. As most readers will recognize, the handbook has a number of elements that are found in competency-based learning materials. This approach was a conscious attempt on the part of the authors to utilize a technique with which most vocational educators are familiar. This is precisely why the concepts of learning experiences play such a great role in the handbook. Learning experiences are, of course, the heart of competency-based materials. They provide the user with a planned sequence of activities designed to lead to the achievement of the "terminal" objective. Certain components are often included in the series of learning experiences in handbooks of this type, e.g., background knowledge concerning the competency and opportunities to practice or apply the competency. Both of these elements are found in these pages. As the user will see, a great deal of the focus is on practice. The handbook, again, is a practical vehicle or, as we say, a tool for the very important process of program improvement.

The format of the sections of the handbook follows a similar pattern:

- Initial background information
- The profile of the hypothetical area vocational school or, as it is referred to for the most part, the case study materials
- Case study information will be framed for your convenience
- Learning experiences that include the milestones (in a more detailed form of checklists), the detailed learning activities, and supplementary resources

We trust that this will be a useful tool for you.

SECTION II

THE NEEDS ASSESSMENT PHASE

Objective:

After completing this section, the program planner will identify the educational needs of the area vocational school described in the case study and complete a general needs statement and a needs assessment summary chart.

Purposes:

- To present descriptions and explanations of needs assessment procedures
- To provide simulated applications of needs assessment procedures

Background Information on Needs Assessment, Level One: Target Area Identified

A needs assessment can be beneficial to a school in many ways since it usually is part of long-range planning. Because the selection and implementation of products and practices depend on an accurate identification of needs, a thorough needs assessment is the first step in the program improvement process. A needs assessment is also crucial to evaluation, for it helps establish the focus of programs designed to improve the outcomes of the entire educational process. A needs assessment provides data for future planning, as well as a basis for allocation of financial and personnel resources. Moreover, repetitive needs analysis can be used to determine whether or not the program improvement process is working, i.e., whether the needs have been met. Such an assessment can be an ongoing activity, can help modify an existing program, and can refocus objectives and content areas. Because educational needs are always changing, assessments must take place regularly.

Most educators are familiar with the definition of an educational need as the difference between an actual situation and a desired state, i.e., the difference between "what is" and "what ought to be." This is a discrepancy definition, in that it focuses on the absence of a desired condition. When teachers talk of student needs in terms of some aspect of schooling (such as reading deficiencies), they are using the discrepancy definition of *need*. However, the problem with this definition is that it assumes knowledge of the perfect state, of "what ought to be." Also, even if we know precisely "what ought to be," we may not be able to obtain it. A better definition of need, therefore, may be the difference between "what is" and "what is satisfactory."

The term *educational needs* often refers to student needs or deficiencies. Many other types of needs exist, e.g., program needs, staffing needs, administrative needs, and so on. In a comprehensive assessment, school staff should consider a whole range of needs. Hence, a needs assessment is a systematic process for determining the difference between existing and desired levels of attainment.

What makes a needs assessment systematic? We believe that it is systematic when initial goals are set. Such goals identify "what ought to be" or, more accurately, "what is satisfactory" in student performance, program design, curriculum development, administrative staffing, and so on. Thus, when we define needs assessment, we say that it is a process of obtaining and analyzing information about problems related to the established goals (Schriner 1979).

Determine Priorities

A needs assessment can be as simple as an informal survey of student attitudes in a single school or as complex as a nationwide student achievement test. When one does not have resources to perform an extensive assessment, the following steps can be taken to determine priorities for program improvement:

- Identify or develop goals.
- Determine and rate the relative importance of each goal.
- Determine and rate the relative effectiveness of current activities aimed at achieving the goals.

- Identify target areas of need by looking at the difference between "what is satisfactory" and "what is," and by determining the difference between the importance of the goal and the effectiveness of current activities.

- Analyze the current status of the target area to identify more specific needs.

Guidelines for Writing a Needs Statement

One of the barriers to achieving program improvement goals is the lack of specificity in stating the problem. Compare the following two statements:

- "We have a communication problem among our faculty."

- "We use team teaching in our building. Virtually all of us involved in teams are concerned with the fact that we have not given adequate attention to creating ways to share innovative ideas across teams. We need ways of sharing that do not take up the time of those to whom a particular idea is not relevent, but that will share enough detail so those who are interested will know how to try it in their own setting."

The latter is a good "needs" statement because it satisfies three guidelines for writing a good needs statement, namely:

- *Who is affected?* Members of the teaching teams are affected. "Virtually all of us involved in teams are concerned . . ."

- *What kind of a need is it?* What is lacking is an adequate means for doing something. "We need ways of sharing . . ."

- *What is the goal for improvement?* How will the situation look when the goal has been achieved? In this case, the goal is not simply increased communications. It is the creation of ". . . ways of sharing that do not take time of those to whom a particular idea is not relevant, but that share enough detail so that those who are interested will know how to try it in their own setting."

The most important ingredient is the last item, that is, the specific goal for improvement. However, this guideline is not always easy to formulate. Your situation may be complex, may contain any number of major and minor goals, and may take pages to describe. Nevertheless, you must keep in mind that describing the situation is not the same as writing a needs statement. A needs statement must address the three guidelines and should focus on only one improvement goal in the specific situation.

In order to complete the problem-solving process, a hypothetical area vocational school is referred to throughtout the handbook—in the initial profile that follows and in the case study materials below.

Initial Profile of the Area Vocational School

The school is in the center of an area that is predominantly rural. Most of the population has worked on farms, in nearby summer resort hotels and restaurants, in service stations, and construction jobs. Most of the employment is seasonal. During the winter months, the rate of unemployment is high. The trend has been for children to follow the occupational patterns of their parents.

In the last five years, a distribution center for a large mail order company, an electronics manufacturing plant, several nursing homes, and a large medical center were built within a thirty-mile radius of the school.

During the construction of these new industries, the school administrators and the management personnel of the industries worked together to develop a long-range plan for the school that would provide needed entry-level employees. The outcome of this planning was the addition of computer science, health services, and basic electronic component repair courses. All of the new courses included cooperative work-study experiences in the industries. These courses were available for student enrollment when each new industry opened. Five years later, however, since only 25 percent of the students are enrolling in these new courses, the school board is considering dropping them. The traditional courses (agriculture, horticulture, home economics, food services, auto mechanics, and construction trades) are still showing high levels of enrollment and placement.

At a recent meeting of a local labor council, the representatives of the new industries expressed concern about their high labor turnover. Entry-level employees were moving into the area, staying only long enough to gain experience, and then leaving for jobs in urban areas. They asked the school administrators if something could be done to increase the number of students completing the courses that were designed originally to provide a stable source of entry-level employees for these industries. If the school could increase the number of students qualified for entry-level jobs, the new industries would provide opportunities and internal training for job promotion.

The school director, Mr. Joseph Phipps, reported this request to the school board. Mr. Phipps had been trained in the problem-solving process and had received board approval to use the process to identify the sources of the current problems in the school program and to find products and practices that would resolve them. The board appointed a ten-member area vocational school program improvement team (AVSPIT) to work with Mr. Phipps to seek a way to improve the effectiveness of the school in meeting the needs of the local labor market and to expand the career choices of students beyond the traditional occupations of the region. The team members included a representative from the local labor council, a member of the school board, guidance counselors from four feeder districts, and four instructional staff members.

Mr. Phipps also received approval to have the state-level regional representative provide the team with technical assistance and resource materials as needed.

Learning Experience #1: Target Area Identified

Needs Assessment, Level One, follows a five-step procedure described in the next section. It is a discrepancy analysis that identifies gaps between desired and actual outcomes. The checklist presents the steps to be followed in identifying the target areas of need. After you have studied the checklist and the previous initial profile for the area vocational school, complete Activities #1 and #2.

Needs Assessment Checklist, Level One

Milestone Three: Target area of need is identified. This milestone is based on the notion that successful program improvement must focus on clearly defined problems.

____Step 1. The existing school data in priority areas are gathered.

____Step 2. Data are summarized and analyzed.

____Step 3. The school profile is prepared, including all available background data.

____Step 4. The first needs assessment meeting of the team is conducted.

____School data summaries and profiles are reviewed.

____Team reacts to all data.

____Step 5. The general needs statement is prepared. This will define the school target area to be improved.

Learning Activities

Mr. Phipps scheduled the first meeting of the team in order to initiate the needs assessment. The objectives of the meeting were to achieve consensus on priorities of the current program goals, to achieve consensus on how effectively each goal was being met, and to identify the goals that were most in need of improvement.

The following materials were provided for use by the team:

- A profile of background information on the area vocational school.
- Data from a statewide assessment of vocational education. The statewide Vocational Educational Assessment included a section on attitudes toward work and knowledge of occupations and careers. The students in the four feeder school districts and the area vocational school scored in the top quartile of the state distribution on attitutes toward work but were in the lowest quartile on knowledge of occupation and careers.
- A goal statement from the school board of directors that focused on the following elements:

____Improving unity and communication among staff

____Increasing career awareness among junior high students in the feeder schools

____Providing categories of occupations to high school students that will prepare them for entry-level jobs in the new industries

____Maintaining training in existing traditional occupations in the area

____Providing career awareness materials for the teachers, counselors, and students in the feeder schools and the area vocational school

Activity #1: Identifying target area of need. Using the profile data and the additional information provided by Mr. Phipps, complete the chart on the priority rating of needs. For your assistance, column 1 already is completed. Use your judgment and the information you have on the school to determine and rate the current level of effectiveness for each goal; put this rating in column 2. For each goal, subtract column 2 from column 1 in order to arrive at the degree of need for improvement for each goal in column 3. (Remember: 5 = high; 1 = low.) The number in column 3 indicates the amount of need—the greater the number, the greater the need. Zero or a minus value in column 3 indicates no need for improvement. Complete Activity #1.

Activity #2: Preparing a general needs statement. Use the guidelines found on page 9 for writing a needs statement, the school profile, and the information on the suggested answer sheet (Chart 2) to write a general needs statement for the school. Check your general needs statement with the suggested answer sheet. Complete Activity #2.

Case Study Continued

Conclusion of needs assessment. The team decided that the general needs statement should be shared with the area vocational school staff and the school board. They also concluded that additional data on the current status of the career awareness program in the school and the feeder schools should be collected.

After completing Activity #2 and reviewing the above conclusion, proceed to *Background Information on Level Two: In-depth Assessment*.

CHART 1

PRIORITY RATING OF NEEDS

Goals	1 – Importance Rating	2 – Current Level of Effectiveness Rating	= 3 Need Rating
To improve staff communication	1		
To increase career awareness among students in the area vocational school and feeder schools to encourage enrollment in the new courses	4		
To provide courses for area vocational school students that will prepare them for entry-level jobs in the new industries in the school service area	5		
To maintain training for area vocational students in the traditional occupations in the school service area	4		
To provide career awareness materials for teachers, counselors, and students in the area vocational school and the feeder schools	4		

Compare your responses with the suggested answer sheet. Proceed to Activity No. 2.

CHART 2

PRIORITY RATING OF NEEDS: SUGGESTED ANSWER SHEET

Goals	1 — Importance Rating	2 — Current Level of Effectiveness Rating	3 = Need Rating
To improve staff communication	1	5	–4
To increase career awareness among students in the area vocational school and feeder schools to encourage enrollment in the new courses	4	1	3*
To provide courses for area vocational school students that will prepare them for entry-level jobs in the new industries in the school service area	5	5	0
To maintain training for area vocational students in the traditional occupations in the school service area	4	5	–1
To provide career awareness materials for teachers, counselors, and students in the area vocational school and the feeder schools	4	2	2*

*Goals with highest priority that need to be assessed.

CHART 3

GENERAL NEEDS STATEMENT

Who is affected?
What kind of a need is it?
What are the goals for improvement?

CHART 4

GENERAL NEEDS STATEMENT: SUGGESTED ANSWER SHEET

Who is affected?

The junior high students in the feeder schools, the area vocational school students, the counselors in the feeder schools and the area vocational school, the teachers of the new vocational school courses, and the new industries in the areas served by the school *all* are affected by problems related to career awareness and school training in occupations available in the new industries.

What kind of need is it?

Although adequate career awareness materials have been provided for the teachers, counselors, and students in the area vocational school and the feeder schools, there have been no improvements in the career awareness or career knowledge of junior high school students. While courses that prepare area vocational schools students for employment in the new industries are available, enrollment in these courses is low. The vocational school is not meeting the needs of this new labor market.

What is the goal for improvement?

More effective use of the available career awareness materials by teachers, counselors, and students in both the area vocational school and the feeder schools must occur. Current career awareness materials and activities must be added to increase student career awareness and knowledge, especially in those occupations related to the new industries. Student enrollment in the new courses must be increased to meet the current needs of the local labor market.

Background Information on Needs Assessment, Level Two: In-depth Assessment

After a target area of need has been identified, it is necessary to complete an in-depth assessment in that area. During Needs Assessment, Level Two, in-depth analyses are completed on program materials, administration and management, staff development, student services, and instructional programs. Level Two requires the team to focus on the following questions:

- Are the current program materials adequate?
- Do teachers, counselors, and students have access to the materials?
- Are the materials compatible with stated program objectives?
- Where are the weaknesses related to the target area in administration and management, staff development, student services, and instructional programs (including student outcomes)?

To answer these questions, items must be written for survey questionnaires and structured interviews. These instruments should have between four and six items for each question. Respondents should be selected from groups with direct involvement in the target area, e.g., teachers, administrators, students, counselors, parents, and employers. Usually different forms are constructed for each major group of respondents. The items in each form will ask for similar information but should be phrased differently for each group.

Data collected in Level Two are summarized and analyzed for each group. When this type of data summary is presented to a planning team, it is organized to show how each group responded. The planning team would then use the data to produce a summary chart that specifies the major problems in the target area that appear to be in need of improvement. This summary is important because the data become the basis for selecting and implementing new products and practices in the target area of need.

Case Study Continued

The program improvement team had reached milestone four and had identified the career awareness program as the target area to be improved. Based on the information available, it was their judgment that if the career awareness program were improved, most of the other areas of need (such as enrollments in the new courses) also would improve.

The team now was aware of the target area of need but was uncertain why it was a problem. More information about the current status of the career awareness program was needed before it could begin to search for new products and practices.

The team decided to (a) interview several teachers, counselors, students, parents, and employers and (b) send questionnaires to all of the teachers, counselors, students, and to a sample of parents and employers. The team met with Mr. Phipps and constructed questionnaires and interview schedules designed to answer the following questions:

- How was the current career awareness program administered and managed?
- What staff development had been conducted, e.g., regular inservice, counselor training, or preinstallation staff learning?
- How good were the materials?
- How was career awareness integrated in the curriculum?
- How were the materials used?
- Were employers and parents involved in any way?

Items were written for each question. The team then mailed questionnaires to all counselors, teachers, and administrators in the area vocational school and feeder schools and to a sample of parents and employers. Interviews were held with a sample of area vocational school teachers, junior high school teachers, and guidance counselors.

The data from the questionnaires and interviews were analyzed and summarized by Mr. Phipps in order to be presented to the team.

At the team meeting, Mr. Phipps provided data summaries for review. After much discussion, the group reached consensus that the major problems in the career awareness program were as follows:

- Overall coordination and management of the program were lacking.
- The current materials were outdated, of poor quality, and narrow in scope.
- Consumable materials had not been reordered when needed.
- Counseling services for junior high school students were limited and concentrated on college-bound students.
- Materials had been placed in feeder schools and the area vocational school but were kept in a resource room.
- Counselors and teachers did not have any training in the use of the career awareness program.
- The career awareness program had been selected before the new courses had been installed and had very limited information on these occupations.
- Neither parents nor employers knew anything about the career awareness programs.
- There were no records to show that the career awareness materials were used in classroom instruction.

- The career awareness materials were not part of a comprehensive program but had been ordered from publishing company "grocery lists" of products.
- Counselors did not see any relationship between use of career awareness materials and student choice of area vocational school courses.
- There had never been any public awareness activities for the new courses or for the career awareness program.
- Students did not know there was a career awareness program.
- No effort had been made to integrate career awareness instruction into existing curriculum offerings. This situation resulted in inconsistency in student exposure to the career awareness program.
- Counselors and teachers who had used the career awareness materials felt that the focus was more on developing a positive attitude toward work than on offering knowledge about a wide range of occupations.

Learning Experience #2: In-depth Assessment

After you have studied the Level Two, Needs Assessment Checklist and the continuation of the case study, complete Activity #3.

Needs Assessment Checklist, Level Two

Milestone Four: Specific in-depth needs are identified in the target area. This milestone is achieved through a comprehensive analysis of the current status efforts in the target area, in order to identify specific needs that are causing problems.

____Step 1. Program materials are analyzed.

____Interest levels

____Variety

____Compatability with area vocational school goals in the target area

____Availability

____Quality (Is it up to date? Is it comprehensive? Are the reading levels appropriate?)

____Step 2. Major elements in the target area are analyzed, using questionnaires, interviews, and observations.

____Administration and management

____Staff development

____Student services

____Instructional program

____Step 3. Data from Steps 1 and 2 are analyzed and summarized.

Milestone Five: A detailed needs summary is prepared for the target problem area. This milestone is achieved by reviewing all the data produced in both Needs Assessment Levels One and Two.

____Step 1. The needs assessment summary is prepared.

____Review all previously summarized materials.

____Review data summaries on administration and management, staff development, student services, and instructional programs.

____Review the general needs statement from Level One.

____Prepare a summary chart for the target area.

____Step 2. The total area vocational school staff reacts and accepts the summary chart.

____Reach a consensus on needs to address in the search and selection process.

Learning Activities

Activity #3: Preparing a needs summary chart. Use the list of problems stated previously and the general needs statement answer sheet from Level One to complete the following chart. Limit the items in each column to four. Since there is some overlap, you may want to combine several of the Level Two problem statements into one. One statement already has been written in each column to get you started. (Note: In a real school situation, the preparation of the needs assessment summary chart is a team effort.) When you have completed this chart, check your responses with the needs assessment summary answer sheet. Complete Activity #3.

CHART 5

NEEDS SUMMARY CHART

Administration and Management	*Staff Development*	*Student Services*	*Instructional Program*
Need a coordination/ management system for career awareness	Need teacher inservice in use for career awareness program	Need career awareness counseling that provides information related to the occupations available in the new industries	Career awareness program needs to be integrated into existing curriculum

CHART 6

NEEDS SUMMARY CHART: SUGGESTED ANSWER SHEET

Administrative/ Management	Staff Development	Student Services	Instructional Program
Need a coordination/ management system for career awareness	Need teacher inservice in use of career awareness program	Need career awareness counseling that provides information related to the occupation available in the new industries	Career awareness program needs to be integrated into existing curriculum
Need some central information system on student progress in career awareness program	Need counselor inservice in use of career awareness materials for helping students select area vocational school program	Need to publicize the work-study program in the new courses	Career awareness materials need to be accessible to students and teachers
Need a system for keeping materials up to date and for replenishing consumables	Need to develop communication on career awareness between vocational school staff and employers	Need to broaden counseling services in area vocational school	Parents and employers need to be involved in career awareness activities
Need a procedure to get materials out of resource room for use by students, teachers, and counselors	Need to get information on career awareness program to staff, stressing its value to student choice of vocational school courses	Need to build comprehensive communication between feeder school and area vocaschool counselors to provide career support system for students	Career awareness materials need to be comprehensive, sequential, and part of a total career awareness program
Need to bring parents and employers into the career awareness program			Materials should focus on both student attitudes and knowledge of occupations
Need some public relations activities			

Supplementary Resources

Classification of Needs

There are many types of needs assessments, most of which involve analyses of perceptions of need, actual data on needs, or a combination of perceptions and actual data. The following classification from Adams, Cohen, Koble (1977) may be helpful:

- Objective discrepancy analysis—This technique involves measuring student performance by such objective means as standardized tests and comparing the results to desired status on a set of established goals.

- Subjective discrepancy analysis—This technique involves measuring such things as student performance on the basis of the opinions of reference groups, e.g., teachers, parents, and employers.

- Self-perceived needs discrepancy analysis—This technique involves assessment of the opinions only of those being evaluated. For example, graduates of a vocational program might be surveyed to determine their perceptions of how the program met their job-training needs.

- Interactive needs assessment—This technique involves systematic interaction on the part of educators in a school building or system to generate goals and analyze needs.

- Objective needs assessment—This technique involves the analysis of factual data from outside sources such as student achievement test results from a large-scale assessment.

- Subjective needs assessment—This technique involves use of a questionnaire or similar instrument to obtain the opinions of respondents on the importance of goals or the seriousness of educational needs.

Each category has its strengths and limitations. Subjective analysis, for example, has the inherent danger of representing the bias of those surveyed. At the same time, overreliance on external data, such as test scores that may not apply to a particular group of students, also can be dangerous. A combination of "hard," or objective, data and "soft," or subjective, data often will provide the clearest picture of educational needs.

Additional Readings

For more information on needs assessment, see Adams, Cohen, Koble (1977), a report of a study to assist in determining priorities for meeting vocational education needs in urban areas. A summary of this study also appears in Ahmann (1979). Ahmann identifies types of needs assessment and includes a discussion of several different needs studies in vocational education. The appendices also list additional resources on needs assessment.

Three other useful items are as follows: (1) Gray (n.d.) has written a pamphlet designed to help educators clarify their need statements. An example of a needs statement, statement of the target group, statement of goals and expected results, list of criteria important to the resolution of needs, and suggested approaches to the problem are provided. (2) Pennington (1980) also discusses concepts, models, and characteristics of needs assessments. (3) Schriner (1979) presents a simplified treatment of the problem-solving process that includes a section on assessing needs and setting action objectives.

SECTION III

THE SEARCH AND SELECTION PHASE

Objective:

After completing this phase, the program planner will use selection criteria to identify a career awareness program to be implemented in the area vocational school in the case study.

Purposes:

- To present descriptions and explanations of search and selection procedures
- To provide simulated applications of the search and selection procedures

Once you have identified the school's needs, you may choose one of several options. For example, you may decide to maintain your present program with some minor modification. On the other hand, selecting new products or practices may be a feasible course of action. Another alternative, while costly and time-consuming, may involve developing a new product or practice if you are unable to locate useful materials. This is not to say that the introduction of a new product or practice will immediately solve major educational problems. Nevertheless, an innovation that is adapted to the school can be a major step in the educational improvement process. Much literature on the diffusion or spread of new concepts is available. Many federally funded projects have been based on this concept. In fact, the four major steps in the problem-solving process were successfully documented under the Research and Development Utilization (RDU) program of the National Institute of Education.

The selection of materials is basic to the educational process. Generations of teachers have searched for appropriate materials. In the present case study, however, we are not talking strictly about curriculum materials, although they might be regarded as innovations. Rather, any type of educational material (program or concept) with the potential for improving programs is regarded as an innovation. Furthermore, the term *innovation* in this context implies that the product or practice is based on sound research and development and has proven to be successful in a variety of settings.

In discussing this phase of the program improvement process, we will highlight three points: determining where to go for sound products, practices, programs, materials, or concepts; knowing what types of products or practices to select; and completing the actual selection by using appropriate selection guidelines.

Locating Useful Resources

Educators are fortunate in having many excellent sources to assist them in their program improvement efforts. Unfortunately, it is sometimes lack of incentive rather than the absence of available resources that causes program stagnation. A major study of innovations by the Rand Corporation found that local schools sought and used new ideas when they needed them but did not seek out new concepts when they were unmotivated by need (Berman and McLaughlin 1975).

At the same time, major information networks are available to those who are willing to search for materials. In a working paper, Kowle (1981) provides details on such major information resources as the Resource and Referral Service (RRS) of the Research and Development Exchange (RDx) and other networks and resources for vocational education.

Specific innovative materials may be obtained through each of the following sources. The Educational Resources Information Center system (ERIC) includes curriculum, staff development materials, and other documents unlikely to be published elsewhere. The Resource and Referral Service, located at the National Center for Research in Vocational Education at The Ohio State University, provides mini-lists of publications and programs in emerging areas. Requests for information are answered on an individual basis. The National Network for Curriculum Coordination in Vocational and Technical Education (NNCCVTE) collects curriculum materials (excluding commercial items) in the vocational service areas. Their six regional centers are listed in the section on supplementary resources.

Other excellent sources are available to assist program planners. As noted, the National Institute of Education (NIE) for several years supported the Research and Development Utilization program to ensure that high-quality materials were selected and used by schools. State capacity-building grants provided funding for states in adopting innovations. The National Diffusion Network (NDN), funded by the NIE, encourages use of innovations in problem solving. NDN products and materials have the approval of the Joint Dissemination Review Panel (JDRP) before local educators use them. This means that the innovations disseminated by the NDN have high standards of quality. In fact, a recent study by the federal General Accounting Office notes that many districts would improve services under Title I if they adopted exemplary projects approved by NDN. A comparison of approved and nonapproved Title I programs indicates that approved programs often reported better results and were less expensive ("Few Title I Projects ." 1981). The catalog, *Educational Programs That Work* (1981), describes JDRP-approved innovative programs. Curriculum materials are not always innovations and may not be designed to promote educational change. In addition, some locally developed curriculum is not based on sound research and development and can not be used in a variety of settings. Nevertheless, curriculum is one type of material most often sought by local schools.

The National Network for Curriculum Coordination in Vocational and Technical Education is a good source of curriculum materials. However, there also are quality nonvocational sources as well; for example, commercial publishers are an important source. In addition, professional associations develop many quality materials. Research and development labs and centers also produce sound materials that are not always submitted for JDRP approval. The National Audiovisual Center (located in Washington, D.C.) is an excellent source for films and nonprint media.

The National Center Clearinghouse at the National Center for Research in Vocational Education produces the following relevant resources:

- *Program Improvement Data Base:* The program improvement data base contains descriptions of projects in two categories: (a) ongoing and recently completed research and development projects in vocational education, including research projects, exemplary and innovative projects, and curriculum development projects administered through state research coordinating units and (b) federally administered projects related to career education, vocational education, and education and work. Project proposals or summaries are acquired by the National Center Clearinghouse from states and selected federal agencies. Information about each project is processed for entry into a computerized data base maintained by a subcontractor, Education Service Group, an affiliate of Bibliographic Retrieval Services.

  The data base features ERIC descriptors for on-line subject searching and includes names of project directors, organizations performing the work, and funding amounts. Information on the availability of reports and products resulting from completed program improvement projects has been added recently. In addition to its on-line search capabilities, the data base is used to produce camera-ready copy for publication of abstracts.

- *Resources in Vocational Education (RIVE):* RIVE is a series of publications that provides vocational education professionals with easy-to-use and current information about projects, products, and organizational resources.

  State Program Improvement Projects: These publications contain resumes of state-administered program improvement projects in the areas of research projects, exemplary and innovative projects, and curriculum development projects. A subject index is included.

Directory of Vocational Education Personnel: The names, addresses, and telephone numbers of state and federal agencies responsible for vocational education are listed.

Curriculum Resources: This document includes resumes of vocational education instructional materials announced in ERIC or available from federal agencies.

In summary, the selection of educational innovations is greatly assisted by a number of organizations. The key to successful selection is to consider a wide range of materials and to choose those that best meet your identified needs.

Knowing what Types of Materials to Select

The types of materials selected will depend on the problems identified. For example, if the problem is one of student achievement in basic mathematics, a program designed to improve basic skill deficiencies is a likely choice. A problem involving time management might require a consultant who, in turn, would suggest an administrative plan. Not all the materials selected are likely to be innovations generated by research and development. At the same time, when a major change is called for, a tested exemplary program is more likely to produce successful results.

Materials obviously take a variety of forms. They may be print or nonprint media and/or human or organizational resources. They may represent extensive programs or may be short handbooks, guides, information brochures, literature reviews, and other research-related publications.

In addition to the national pool of exemplary products and programs, state and local resource agencies often may help you locate successful items that have been developed and validated in a high school or area vocational school. In short, although many resources are available, it is important to match resources and needs.

Some Important Guidelines

Before contact is made with sources of possible products or practices, some description of the type of item needed should be developed. While the description may be a narrative or an outline, it must include the criteria that will be used to evaluate the products available from the resources. Both the description and the school-specific criteria must be based on the needs identified. In addition to the school-generated descriptions and criteria, other criteria related to the overall quality should be considered.

The National Center for Research in Vocational Education has developed a guide, *Tentative Product Selection Criteria* (1979), for use in identifying materials selected for nationwide dissemination through its Dissemination and Utilization Program. The primary function of these criteria is to guide product examination and analyses conducted at the National Center. When criteria-based selection instruments are applied to available products, descriptive data about them are generated. Careful consideration of these data ensure selection of the best and most appropriate products that are disseminated to vocational educators and their constituencies.

Ultimately, the selection criteria are intended to serve the best interest of vocational educators. These criteria are used as a "lens" for examining a great variety of products. They have been designed to be applicable to products and information pieces addressing a spectrum of user needs and to analyze an array of product types. The systematic application of the criteria will consequently help vocational educators as they seek to promote excellence in the field.

The criteria, which may be used by administrators in judging the appropriateness of materials, are organized into the following five categories: effectiveness, compatibility, contents, cost-efficiency, and research evidence of effectiveness. An explanation of each criterion follows.

Effectiveness. The characteristics of the product should be such that the effect of its use will enable vocational educators to translate research and development results into practical action. For example:

- The product should produce direct effects that are desirable and timely.
  - — *Long-term effects:* The desired effect should be produced for several years beyond immediate dissemination.
  - — *Number/scope of effects:* The product should help produce a variety of direct improvements.
  - — *Comparative effectiveness:* Comparisons with other products having similar objectives should reveal that the selected products are most appropriate for dissemination.
  - — *Flexibility/adaptability:* The product should be effective in a variety of settings and meet the needs of broad user groups.
- Some products may be expected to produce indications of effectiveness, such as contributing to the general knowledge in the field or providing a model for other work.

Compatibility. Products that incorporate familiar and/or desired practices and outcomes will tend to be most compatible with existing programs. They should contribute to the solution of problems with a minimum of expense. Product orientation and staff development activities should be reasonable and proportionate to the perceived need for the product.

- A desirable product helps solve a professional problem and/or addresses a perceived need.
  - — *Priority of need:* The product should address established priority areas on the federal, state, or local level.
  - — *Relevance:* The product should be manageable to use and pertinent to the problem or need identified.
  - — *Marketability:* The product should be marketable, exhibiting the following characteristics: meets a need; is affordable; is visually appealing and inviting; can be adopted without an initial long-term commitment; is exemplary in that it is superior to other products in current use; is conceptually sound; has been proven by successful use; and produces outcomes that may be spread to other users.
- The product can be directly and easily used for similar purposes in similar settings.
  - — *Practicality:* The product should serve an obvious purpose.
  - — *Timeliness:* The product focuses on the most current and significant aspects of its theme.
  - — *Credibility:* The product should be believable in its approach to the problem or need.

— *Packaging:* The packaging of the product should take the following factors into consideration: storage, weight, durability, easy identification of components, organization, and retrieval of components.

Contents. The contents of the product should be presented well, should adhere to accepted research methodology (where applicable), and should represent a good match with the needs and capabilities of the intended users. For example:

- The product should avoid words or illustrations that assign roles or characteristics to individuals on the basis of sex, race, or special needs.

  — *Sex bias:* Appropriate verbal and visual portrayal of both sexes should be evident.

  — *Racial/ethnic bias:* Minority groups are represented fairly.

  — *Representation of special needs populations:* The product should be sensitive to the needs of the handicapped, disadvantaged, limited-English-speaking, and other special needs populations.

- The product should communicate its message in a clear and compelling manner.

  — *Readability:* The level of language used in the product and the level of comprehension required of the user should be in keeping with its intended use.

  — *Consistency:* Layout and design of the product should be consistent. Writing style should remain the same throughout the product.

  — *Types of media:* The most effective forms of audio, visual, written, or tactile communication should be used.

  — *Clarity/editing, physical quality:* The presentation and format of the content should be of high quality.

- The design, execution, and presentation of the content should be based on sound research and development methodology.

  — *Suitability:* The concept behind the product should be consistent with research and development in that area.

  — *Accuracy:* Content should be correct and current.

  — *Balance/Scope/Selection:* The most significant aspects of the topic should receive major focus. The content should be presented in a nonbiased manner.

  — *Need for product development:* The product should consider past research on the topic and build upon existing resources in that area.

  — *Completeness:* The product should contain adequate information on its development and intended use.

  — *Contribution:* The product should contribute to excellence in the field of education.

- The content of the product should be compatible with the characteristics of the intended users.

- The format of the product should be appropriate for the intended users.

- The product should provide evidence that it will raise the users' level of knowledge on the topic.

- The product should be attractive and interesting to the intended users.

Cost-efficiency. Materials should be inexpensive enough to stimulate widespread adoption and yet provide enough revenue to cover costs. The following factors must be assessed in judging cost-efficiency: cost of acquisition, cost of maintaining the product, shelf life, durability, technical qualities, and transportability of the product from one site to another with similar results. Potential staff development costs also are important. The following considerations should be taken into account:

- The extent to which background information is provided to users in order to minimize the need for outside resources.

- The extent to which there are special conditions for use.

- The extent to which directions are provided for additional training.

- The amount of additional training required.

Research evidence of effectiveness. Claims and observations about the effectiveness of a product should be verified with valid and reliable data. Nonexperimental studies of product use should indicate an association between the product and a desired condition (e.g., solution of a problem). Evidence should indicate that the effect of the product is of sufficient magnitude and that the effect can be achieved when the product is used at other sites.

While instructional materials and other innovations may be judged differently, rating scales are available to assist in objective assessments. You may wish to modify or adopt one of the scales presented here to use as a basis for your product selection process. If your process is systematic and is based on established principles, you will be more likely to succeed in implementing the products and practices selected.

A sample section of a product rating form used by the National Center for Research in Vocational Education to rate the effectiveness of a product is presented in figure 2.

Case Study Continued

The area vocational school program improvement team had shared the needs summary chart with the school staff and administrators and received approval to search for a career awareness program that would meet their needs. Mr. Phipps contacted the state department career education representative and asked for assistance in identifying products already successful in other regions of the state. He also contacted the regional vocational education resource center, an informational retrieval center, and several commercial vendors in order to learn what was available. As a result, he was overwhelmed with catalogues and brochures. It was clear that future requests to these agencies would have to be more specific.

The team met with Mr. Phipps in order to write a description of what specific type of program was needed. Based on his training in the program improvement process, Mr. Phipps asked the team to write a brief statement defining what kind of a program they were looking for and to develop a list of criteria for selection.

While the description was relatively easy to write, it was another story when it came to the criteria. The general description of the type of career awareness program they were seeking included the following elements:

- The program uses a variety of materials.
- The program provides adequate knowledge in a broad range of occupations.
- The program has special focus on occupations in the new industries.
- The program can be used for grades seven through twelve.

Learning Experience #3: Search and Selection

After you have studied the Search and Selection Checklist and related reading materials, complete Activities #4 and #5.

Search and Selection Checklist

Milestone Six: Alternative products and practices are identified. This milestone requires matching the school needs identified in milestone five with a set of available products and practices.

____Step 1. Generate the selection criteria from the needs assessment summary report.

____Step 2. Locate the major sources of alternative products and practices.

____Step 3. Search the resource pool for a set of approximately ten products that match the criteria.

FIGURE 2

PRODUCT RATING FORM

1. Long-term effects:

1 Low	2 Moderate	3 High	Points
Has little potential to affect vocational education priority areas beyond initial dissemination. Will provide little to reinforce directions of improvement in vocational education research, development, and practice.		Has potential to affect vocational education priority areas beyond initial dissemination. Can reinforce directions of improvement in vocational education R&D. Can stimulate excellence in vocational vocational research, development, and practice.	

2. Number/scope of effects:

1 Low	2 Moderate	3 High	Points
Will produce few direct improvements in vocational education. Association with desired trends in vocational education practice is unclear.		Will help produce a variety of direct improvements in vocational education. Is clearly associated with desired trends in vocational education practice.	

3. Comparative effectiveness:

1 Low	2 Moderate	3 High	Points
Other identified materials with similar objectives are more fitting for nationwide dissemination.		When analytically compared to products with similar objectives is the most fitting for nationwide dissemination.	

4. Flexibility/adaptability:

1 Low	2 Moderate	3 High	Points
Applicable in few vocational education settings. Addresses the needs of user groups that are too narrow for network dissemination.		Applicable in a wide variety of settings. Meets the needs of broad user groups.	

Comments: _____
Modification Required: _____
Modification Desirable: _____

_____
Total Points

Milestone Seven: Products and practices are selected for installation. This milestone requires extensive screening and evaluation of a group of alternative products and practices in order to find the best "fit" between school needs and one of the products and practices.

____Step 1. Review the products.

____Screen the set using the selection criteria.

____Eliminate all but three or four products.

____Step 2. Select the product or practices.

____Consider the total staff rating of the products.

____Prepare the summary of ratings.

____Select the products (or practices) to be installed.

____Or alternative Step 2. If all the products are rejected, begin a curriculum development process, a development process for management activities, and similar activities as needed.

____Identify the process.

____Develop a plan to implement the process.

____Initiate the process.

Learning Activities

The team members met with Mr. Phipps to clarify their description of the kind of career awareness products they wanted and to develop criteria for use in locating and selecting them. Mr. Phipps suggested that some criteria could come from the needs summary chart developed at the last meeting and the criteria for product selection developed by the National Center for Research in Vocational Education. He also developed an additional list from a review of the research literature. The criteria from the National Center were stated previously. The additional criteria from the literature—particularly the work of Ball, Marvin, Temkin (1975)—included the following points:

- clear objectives
- appropriate scope
- logical sequence
- content accuracy and detail
- appropriate grade and difficulty level
- varied learning activities
- information on pupil performance
- provision for review
- extent of individualization
- appropriate cognitive level
- provision for staff training
- ease of student use
- attractive format and appearance
- equipment required
- facilities required
- organizational staff changes required
- reasonable cost
- expert authorship
- results of formal evaluation
- results of informal evaluation
- lack of bias
- interdisciplinary approach
- local acceptance

Activity #4: (Criteria development) Using the criteria of the National Center, the list provided by Mr. Phipps, and the needs assessment answer sheet, the team prepared a set of criteria and a rating sheet to be used in selecting a career awareness program. A partially completed product rating chart is presented below. Using the information with which you have been provided, fill in the additional criteria. Check your responses with the suggested answer sheet that follows. Complete Activity #4.

CHART 7

RATING CHART FOR CRITERIA

Rating Scale:	0 Not at All	1 Some Extent	2 Moderate Extent	3 Large Extent	4 Completely

Instructions: Rate the programs using the rating scale provided above.

Criteria	Program A	Program B	Program C	Program .... Program D	K
1. Is comprehensive in scope and sequence					
2. Includes a strong focus on occupations in the area's new industries (health services, computer science, etc.) as well as traditional occupations in the region					
3. Is reasonable in cost					
4. Includes staff development materials and services					
5.					
6.					

CHART 7 – Continued

Rating Scale:	0 Not at All	1 Some Extent	2 Moderate Extent	3 Large Extent	4 Completely

Criteria	Program A	Program B	Program C	Program . . . Program D	K
7.					
8.					
9.					
10.					
11.					
12.					
13.					

CHART 8

RATING CHART FOR CRITERIA: SUGGESTED ANSWER SHEET

Rating Scale:	0 Not at All	1 Some Extent	2 Moderate Extent	3 Large Extent	4 Completely

Criteria	Program A	Program B	Program C	Program . . . Program D	K
1. Is comprehensive in scope and sequence					
2. Includes a strong focus on occupations in the area's new industries (health services, computer science, etc.) as well as traditional occupations in the region					
3. Is reasonable in cost					
4. Includes staff development materials and services					
5. Includes a management and coordination system					
6. Has a strong knowledge component in a wide range of careers					

CHART 8 – Continued

Rating Scale:	0 Not at All	1 Some Extent	2 Moderate Extent	3 Large Extent	4 Completely

Criteria	Program A	Program B	Program C	Program D	Program .... Program K
7. Is compatible with current materials					
8. Has evidence of effectiveness					
9. Is suitable for the students in the area vocational school					
10. Is adaptable and flexible					
11. Includes strategies for parent and employer involvement					
12. Includes material and/or procedures for public relation activities					
13. Is bias free					

Case Study Continued

The description of the desired career awareness product and the list of criteria were sent to the regional resource center, the information retrieval center, and commercial vendors. The information and sample materials for the career awareness programs were received. Using the rating scale, the team analyzed the responses and narrowed the identified products to the following three programs:

Program A is a comprehensive program with student, guidance, and classroom materials for grades seven through twelve. It provides strategies and forms for management and coordination of the total program that should result in integration with the regular curriculum. Student record logs are part of the system. It does not require expensive hardware; the software is compatible with the existing available hardware. A wide range of occupations is covered and there is an emphasis on knowledge about each career. About 50 percent of the content focuses on the occupations related to the new industries in the school service area. The cost to install it is $20,000, with an average annual cost of $2,200 to update the content and replace consumables. The developers provided evaluation data on effectiveness. Its history of use in both urban and rural area vocational schools supports its flexibility of use. Reading materials are provided in reading levels ranging from 4.5 to 8.0. Racial, sex, and handicap bias is not present. The materials have provisions for staff development.

Program B has a strong knowledge component but is limited in comprehensive coverage of careers. There is no management system. Although staff training materials are available, it is a service package from the developer. Installing it would require purchase of expensive hardware and modification of school facilities. The installation costs would be $75,000, with an annual cost of $5,000 to maintain it. The developers claim it could be made compatible with the current program but do not say how this will be done. While most occupations and careers are covered, there is no extensive information on the occupations in the new industries in the school service area. The developers provide evidence of effectiveness but only in large urban centers. There are no provisions for special needs students; several incidents of sexual bias in the materials are evident.

Program C is low cost ($10,000 to install) and has no annual cost except when the school wants to add components. It has a management and coordination system and a moderate amount of staff development material. Although it covers a wide range of careers, there is limited material on the occupations in the new industries in the school service area. It appears to be compatible with current career awareness materials. The developers provide limited evidence of effectiveness, although testimonials from users are available. It is suitable for students for grades nine to twelve. Materials are attractive but limited; there are no obvious signs of bias.

The total area vocational school staff then examined these programs and rated them.

Activity #5: Using search and selection criteria. Use these program descriptions to complete Chart 9. Decide what you think the average school staff rating would be for each program on each criterion. Compute the total rating for each program. The program with the highest rating will be the one selected. In order to get you started, some of the ratings have been filled in. Compare your final selection with the suggested answer sheet (Chart 10). Complete Activity #5.

CHART 9

RATING CHART FOR PROGRAM SELECTION

Rating Scale:	0 Not at All	1 Some Extent	2 Moderate Extent	3 Large Extent	4 Completely

Instructions: Rate the programs using the rating scale provided above.

Criteria	Program A	Program B	Program C	Program.... D	Program K
1. Is comprehensive in scope and sequence	4	2	0		
2. Includes a strong focus on occupations in the area's new industries (health services, computer science, etc.) as well as traditional occupations in the region					
3. Is reasonable in cost					
4. Includes staff development materials and services	2	2	3		
5. Includes a management and coordination system					
6. Has a strong knowledge component in a wide range of careers					

CHART 10

RATING CHART FOR PROGRAM SELECTION: SUGGESTED ANSWER SHEET

Rating Scale:

0 Not at All	1 Some Extent	2 Moderate Extent	3 Large Extent	4 Completely

Instructions: Rate the programs using the rating scale provided above.

Criteria	Program A	Program B	Program C	Program.... D	Program K
1. Is comprehensive in scope and sequence	4	2	0		
2. Includes a strong focus on occupations in the area's new industries (health services, computer science, etc.) as well as traditional occupations in the region	3	0	1		
3. Is reasonable in cost	2	1	4		
4. Includes staff development materials and services	2	2	3		
5. Includes a management and coordination system	4	0	2		
6. Has a strong knowledge component in a wide range of careers	4	2	4		

CHART 9 – Continued

Rating Scale:

0 Not at All	1 Some Extent	2 Moderate Extent	3 Large Extent	4 Completely

Criteria	Program A	Program B	Program C	Program.... D	Program K
7. Is compatible with current materials					
8. Has evidence of effectiveness					
9. Is suitable for the students in the area vocational school	3	2	3		
10. Is adaptable and flexible					
11. Includes strategies for parent and employer involvement					
12. Includes material and/or procedures for public relations activities					
13. Is bias free					

CHART 10 – Continued

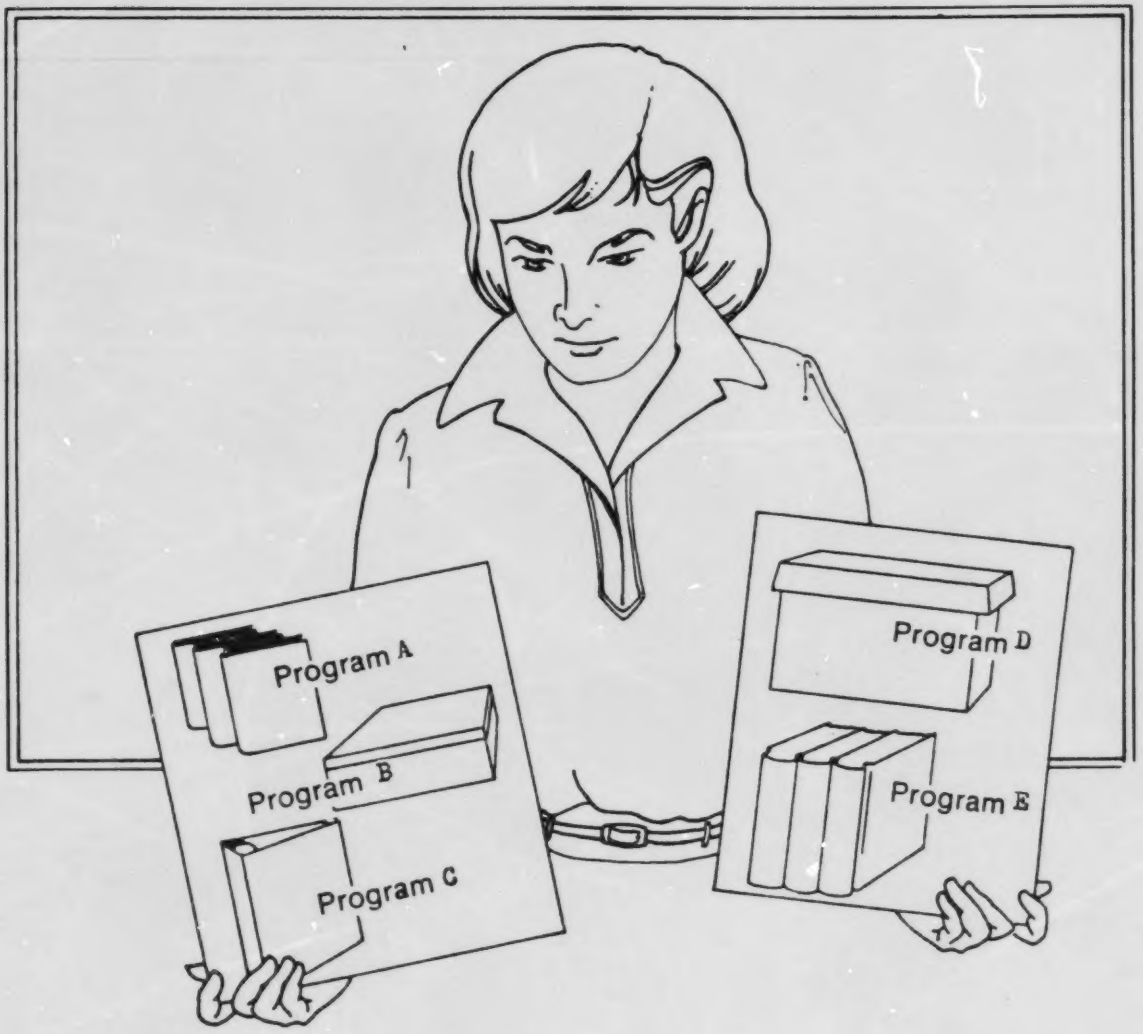
Rating Scale:

0 Not at All	1 Some Extent	2 Moderate Extent	3 Large Extent	4 Completely

Criteria	Program A	Program B	Program C	Program.... D	Program K
7. Is compatible with current materials	3	2	2		
8. Has evidence of effectiveness	4	2	1		
9. Is suitable for the students in the area vocational school	3	2	3		
10. Is adaptable and flexible	3	0	2		
11. Includes strategies for parent and employer involvement	4	0	3		
12. Includes material and/or procedures for public relations activities	4	2	0		
13. Is bias free	3	0	3		
Totals:	43	15	28		

Although many economic, social, and political considerations influence the decision-making process, the final decision of which career awareness program to install must be based on sound educational program criteria. Which career awareness program is best suited for meeting the instruction or program needs of the area vocational school discussed in the Case Study?

Answer: Career Awareness Program A is best suited to meeting the instructional or program needs of the area vocational school. Program A received the highest overall rating in terms of the educational program criteria listed in Chart 10.



Supplementary Resources

Additional References

For more information on the selection process, you may wish to read *Select Student Instructional Materials* (1979), Module B-5 in the Performance-Based Teacher Education series of the National Center for Research in Vocational Education. Designed for teachers, this module includes questions to ask in selecting materials and an exercise on using the Flesch formula for determining readability.

Use Information Resources to Help Solve Educational Problems by Kowle (1981), a working paper in the Competency-Based Vocational Administrator series of The National Center for Research in Vocational Education, provides an overview of information resources.

A Minicourse on Selecting Resources for School Improvement by Trohoski (1980) is a self-guided course on selection based on the Pennsylvania School Improvement Program. The course is divided into the following sequential areas: introduction to selection, committee-developed ground rules for selection, specific selection criteria development, practical application of the selection criteria, and a selection summary. A booklet on sex fairness considerations and a brochure on the National Diffusion Network are included.

The National Network for Curriculum Coordination in Vocational and Technical Education (NNCCVTE) collects curriculum materials (excluding commercial items) in the vocational service areas. *The six regional centers of NNCCVTE* are as follows:

Northeast Network Curriculum Coordination Center: States served—Virgin Islands, Puerto Rico, Rhode Island, Vermont, New Jersey, Connecticut, Maine, Massachusetts, New Hampshire, New York

Bureau of Occupational and Career Research Development
Division of Vocational Education
225 West State Street
Trenton, New Jersey 08625
(609) 292-6562

Southeast Network Curriculum Coordination Center: States served—Tennessee, Mississippi, Florida, Georgia, North Carolina, Kentucky, South Carolina, Alabama

Associate Dean (R&D)
College of Education
Mississippi State University
Drawer DX
Mississippi State, Mississippi 39762
(601) 325-2510

East Central Network Curriculum Coordination Center: States served—Illinois, Delaware, Pennsylvania, Minnesota, Indiana, West Virginia, Virginia, Maryland, Ohio, Wisconsin, Michigan, also the District of Columbia

Illinois Vocational Curriculum Center
Sangamon State University, E-22
Springfield, Illinois 62708
(217) 786-6600

Midwest Network Curriculum Coordination Center: States served—Oklahoma, Arkansas, Texas, Kansas, Missouri, Nebraska, New Mexico, Iowa, Louisiana

State Department of Vocational and Technical Education
1515 West 6th Avenue
Stillwater, Oklahoma 74074
(405) 377-2000, ext. 261

Northwestern Network Curriculum Coordination Center: States served—Washington, Alaska, Colorado, Idaho, Montana, North Dakota, South Dakota, Oregon, Utah, Wyoming

Washington State Commission for Vocational Education
Building 17, Airdustrial Park, LS-10
Olympia, Washington 98504
(206) 753-0879

Western Curriculum Coordination Center: States served—California, Arizona, Hawaii, Nevada, American Samoa, Guam, Trust Territory of Pacific Islands

University of Hawaii
1776 University Avenue W. 216
Honolulu, Hawaii 96822
(808) 948-7834

Principles for the Selection and Use of Instructional Materials

A number of important principles for the selection and use of instructional materials should be considered. The following is a valuable guide:

____Provision is made for securing a wide variety of good instructional resources.

____The school system prepares an inventory of community resources that can be used to enrich the curriculum.

____A school system instructional materials center is provided with an adequate supply of appropriate instructional resources readily available for use by teachers.

____Provision is made for sharing ideas on resources by teachers in the school system through such means as newsletters and teachers' meetings.

____Teachers are informed about free and inexpensive materials.

____Teachers have available to them a variety of curricular materials to meet the differing individual needs, interests, and abilities of all their pupils.

____The school system applies criteria in the selection process for books and other materials that it purchases.

____Classroom teachers participate with supervisors in a team approach to select instructional resources.

____Teachers are invited to serve on selection committees on the basis of their experience, teaching competence, individual judgment, resourcefulness, and interest in serving on such a committee.

____Members of instructional resources selection committees participate freely in reasonable "give and take" discussions with individual representatives of curricular materials firms.

____Adequate released time is provided for teachers to do a thorough job in their study.

____Publishers are notified in advance by letter of pending adoptions, the kind of materials desired, the plans for interviews, and the schedule for hearings.

____When studying textbooks, selection committees are encouraged to study carefully materials accompanying the texts such as teacher's guides, workbooks, tests, and other helps.

____Proper inspection, trial, and comparison by the selection committee, using criteria based on the goals of the school system, are used as the basis for determining recommendations.

____An adequate library of professional resources is available to teachers.

____Teachers are made thoroughly acquainted with instructional resources that are available and with ways in which these may be used.

____Evaluation of instructional resources is carried on as a continuous activity rather than as an operation that takes place hastily just before the purchase of them.

____The inservice education program on new instructional resources helps teachers make effective use of them.

____Provision is made for regular inspection, care, and upkeep of materials.

____The instructional materials are properly cataloged and stored.

____The instructional materials are multiethnic and meet conditions of sex equity.

____The public is kept informed about the materials and equipment being used.

____Supervisors help teachers guide their pupils to develop creative instructional materials in the classrooms.

____Faculty members are encouraged to display creative materials prepared by pupils in an attractive manner on bulletin boards and in classroom exhibits.

____Leadership and time are provided in the inservice program for teachers to work together in the preparation of instructional materials.

____Field trip and community speaker resource guides are prepared for use by teachers.

____Thorough use is made of educational technology in the instructional program.

SOURCE: Lloyd W. Dull, ed., *Leadership Practices for Director of Vocational Education* (Columbus, OH: Ohio Department of Education, Division of Vocational Education, 1979), p. 91.

Checklist of Considerations in Selecting Instructional Programs

Similarly, several useful guides have been developed to assist the selection process. The following is an excellent example:

____*Outcomes.* Are expected outcomes specified stating what proficiencies learners will acquire as a result of instruction?

____*Assessment.* Are measures included that frequently assess pupil progress towards instructional outcomes?

____*User Experience Data.* Are data presented to indicate that (a) outcomes have been consistently attained during previous use of the product in a wide range of situations and (b) learners, teachers, and others involved in the program have expressed satisfaction with the product?

____ *Materials.* Are instructional and supplemental materials and activities included that are keyed directly to the expected instructional outcomes and assessment materials?

____ *Training.* Are materials and procedures included for training teachers and other school personnel to use the instructional resources effectively?

____ *Reporting.* Are materials and procedures included for teachers and administrators to credit the instructional accomplishments of pupils in a form understandable to parents and the public and to identify learners who require instruction beyond that provided with the product?

____ *Time and Costs.* Are the time and cost requirements for establishing and operating instruction with the product acceptable to those involved and reasonable in terms of expected outcomes for learners?

SOURCE: Adapted from *Considerations in Selecting Instructional Products: SWRL Instructional Product Selection Kit* (Los Alamitos, CA: SWRL Educational Research and Development, 1975).

SECTION IV

THE IMPLEMENTATION PHASE

Objective:

After finishing this section, the program planner will complete a plan for the implementation of a new career awareness program in the area vocational school in the case study.

Purposes:

- To present descriptions and explanations of implementation procedures
- To provide simulated applications of implementation procedures

Background Information

Implementation of a new product or practice is the most crucial phase of the problem-solving process. Unless the implementation is conducted properly, needs assessment and successful selection are not as valuable as they should be.

Effective implementation takes time. It must be well planned and should be based on the results of a comprehensive needs identification process, rather than merely on the availability of funds. In short, it must be "proactive" rather than "reactive."

The major steps in implemention are as follows: preparation and planning, installation, and evaluation of the operation and impact. (For the purposes of this handbook, evaluation is treated independently; in "real" life, the implementation and evaluation are planned together and become an action plan for program improvement.)

To repeat, implementation takes time. Movement from initial installation to a fully implemented program cannot be done overnight. Impact on students cannot be expected immediately. During this period, you should expect to make program adaptations, both planned and unplanned. Do not be disturbed, for this is a natural part of assimilating the new program into your system. However, be certain that the critical characteristics of the innovation are not lost during installation. These characteristics are closely related to the criteria that were used to select the products or practices.

Preimplementation Steps

When the decision is made to install a new product or practice, the process of change has just begun. Careful planning is essential. Regardless of the effort to choose the best possible product or practice, the innovation will fail if the total school setting has not been prepared properly. In other words, the school or school district must be prepared by going through what Preston (n.d.) refers to as preimplementation steps.

According to Preston, preimplementation planning includes attempts to resolve potential problems such as personnel concerns, the fit with the current curriculum, scheduling difficulties, and the like. While these difficulties may have been considered during the selection phase, they now must be dealt with in detail. Administrators and staff should be very familiar with the innovation and, therefore, be able to approve the next steps in planning. The general impact of the innovation on the staff should be assessed at this point. Those persons who actually implement the program should be assured that potential problems can be resolved.

In order to prepare for implementation, it is advisable to establish an implementation task force at the school or district level. This task force could be the same as the team that has been involved, or it could have representation from the team. The task force will be responsible for developing a detailed action plan. Measurable objectives, a time line for planning and implementing activities, and a functioning communications network all will contribute to the success of the task force. The preimplementation phase also is the appropriate time to design staff development plans for the introduction of the new product or practice. Budget projections should be completed as much as possible during this phase; staff assignments should be settled. Any necessary staff training or product adaptation needs to be completed before actual implementation. It also is important to create a positive climate before the innovation is actually introduced. If a major new program is being implemented, the entire school—and the community—should be introduced to it.

Figure 3, adapted from Schriner (1979), could be used to develop a plan for gaining support for the selected product or practice:

FIGURE 3

STRATEGY OUTLINE FOR GAINING SUPPORT

Activities	*Responsible Persons*	*Needed Steps*	*Time Line*	*Anticipated Outcomes*
Obtain support of participating teachers	Site coordinator	Meet with teachers	September (first school month)	Teachers will examine and approve products and practices.
Obtain support of administrators (principal, superintendent, board of education)	Site coordinator, team members	Meet with appropriate individuals; provide documentation on the products and practices	September (first school month)	Administrators will examine the products and practices and "go on record" as approving.
Obtain support of other groups (e.g., PTA, community groups, etc.)	Site coordinator	Conduct a series of meetings	September and October (first two school months)	Groups will be aware of new products and practices and will approve.

The Implementation Process

In order to ensure a smooth installation of a product or practice, an action plan must be developed. The main elements of the plan are as follows:

- *Administration and management:* timing, budget, scheduling, facilities, staff assignments, and monitoring
- *Staff development:* preinstallation training and ongoing technical assistance
- *Materials and equipment:* ordering, updating, and distribution and use

It is important that roles are clearly defined and that leaders are confident about their responsiblities. Materials should be distributed and regular meetings conducted, especially during the beginning weeks.

The plan will require continuous review during the entire phase. Actual activities should be compared with specific program objectives and the program should be monitored at the operational level. The budget also will require continuous review. Product modifications may require some alterations and this should be taken into account in the evaluation.

A positive environment can be maintained through participatory management, flexible attitudes on the part of staff, and a systematic communication network. Where the innovation directly involves students, consideration should be given to including their input into program assessment and modification. A continuing relationship should be maintained between new and existing programs. Preston (n.d.) also emphasizes that persons who will be involved actively in the program should feel a sense of ownership.

The Implementation Plan

The action plan will take into account many of the considerations of the preimplementation stage. The plan should identify the staff members to be contacted (and for what reasons) so that the implementation process can begin properly. It also should identify possible problems. The task force already will have information on past successes and existing problems. Overall agreement should have been reached on the goals. All of these factors should have been clarified by the earlier steps in the process. Information on goals, needs, and product evaluation will expedite the development and execution of the plan. The following items should be considered:

- *Program timing and budgeting:* time to prepare for proper implementation; firm dates for implementation activities; and budget or steps to seek approval of the budget, if it has not been approved

- *Staff assignment, orientation, and training:* instructional staff assignments; training programs for instructional staff; and orientation for administrators, teachers, parents, employers

- *Materials, equipment, and facilities:* list of needed materials and equipment; ordering of materials and equipment; inventory of materials; arrangements for distribution of materials or installation of equipment; necessary facilities reserved and schedules prepared; and modifications in existing facilities

- *Student scheduling and instructional procedures:* scheduling students; notifying students and their parents; instructional procedures clearly defined in program descriptions or published manuals; media identified; scope of each activity clearly defined; sequence for each activity; and variations in scope and sequence for self-paced instruction

The following questions, adapted from Schriner (1979), should prove helpful to program planners:

Eight Important Questions to Answer in Your Implementation Plan

- Whose support is initially needed to gain acceptance of the product or practice?

- Which teachers will be involved?

- When should the implementation begin?

- Why was the product or practice selected?

- How much time and money are involved in using the product?
- Where will the product or practice be used and what arrangements have to be made?
- How will we know if the product is successful and whose responsibility is it to evaluate the outcomes?
- If the outcomes are not those intended, what kind of backup plan is needed?

Lastly, the following sample chart for implementation planning could be used—or adapted—as needed:

CHART 11

SAMPLE CHART FOR IMPLEMENTATION

Improvement to be Implemented	*Major Activities Required to Implement*	*Person Responsible*	*Steps Needed to Implement*	*Time Line*	*Anticipated Outcomes*

Case Study Continued

The program improvement team provided the area vocational school board of directors with the result of the needs assessment, the summary needs assessment, and the criteria to search for and select a new career awareness program. This report was presented by Mr. Phipps, who also shared a summary of the ratings of Programs A, B, and C and a brief description of Program A, the one that received the highest rating.

The area vocational school board gave Mr. Phipps approval to purchase and install Program A during the next school term. Mr. Phipps scheduled a meeting of the team to plan for implementation.

Learning Experience #4: Implementation Planning

After you have studied the case study and the implementation checklist, complete Activity #6.

Implementation Checklist

Milestone Eight: The implementation plan for the products and practice selected is prepared and approved. This milestone requires that a detailed plan for installation be produced and approved.

___Step 1. Determine the content of the plan.

- ___Major activities
- ___Facilities
- ___Equipment
- ___Staff requirements
- ___Staff training
- ___Staff responsibilities
- ___Time lines
- ___Costs

___Step 2. Complete the drafting of the plan.

- ___Write program description.
- ___List major activities.
- ___Complete details of the plan.
- ___Write the actual plan.
- ___Select a director for implementation.
- ___Complete implementation chart.
  - ___Major tasks
  - ___Person assigned to each task
  - ___Target dates
  - ___Cost

____Step 3. Submit plan to the school board.

____Step 4. Negotiate terms of funding.

____Step 5. Secure approval.

Activity #6: Development of an implementation plan. Using the description of Program A and the items to be considered in planning for implementation, complete the following planning chart for Program A. As before, some activities have been filled in to get you started. Check your responses with the suggested answer sheet. Complete Activity #6.

(Note: As in all of the handbook exercises, in "real" life, the plan would include more detail and an extensive activity list. For example, a partial plan for implementing a reading program developed by an actual school team is found in the supplementary resources. Also, as indicated, an evaluation plan is part of an implementation plan. While the final section of the handbook presents evaluation planning as a separate activity, in reality, it is part of the planning for installation.)

CHART 12

IMPLEMENTATION PLANNING CHART

Activity	Dates	Staff Responsibility	Materials/Facilities Additional Personnel	Cost
•Preparation for installing Career Awareness Program	3/1 to 9/1	Mr. Phipps and the area vocational school team	Total Program A set of materials for all participating staff	
1. Order materials	3/15			
2. Correlate with current program	3/1 to 5/1	Mr. Phipps, the team, curriculum coordinator, and counselor	Current materials and Program A materials	–
3. Initiate public relations releases on Program A	8/1 to 8/30	Area vocational school administrator	Paper for copies	–
4.				
5.				
6.				
•Installation of Program A				
1. Orientation	9/10	Mr. Phipps and curriculum coordinators		
2. Begin use of Program A	10/1	Teachers, counselors		
3.				
4.				
•Evaluation of Program A (See Evaluation Plan)	3/15 through 6/1 of following year			

CHART 13
IMPLEMENTATION PLANNING CHART: SUGGESTED ANSWER SHEET

Activity	Dates	Staff Responsibility	Materials/Facilities Additional Personnel	Cost
•Preparation for install-Career Awareness Program A	3/1 to 9/1	Mr. Phipps and the area vocational school team	Total Program A set of materials for all participating staff	$20,000
1. Order materials	3/15			–
2. Correlate with current program	3/1 to 5/1	Mr. Phipps, the team, curriculum coordinator, and counselor	Current materials and Program A materials	
3. Initiate public relations releases on Program A	8/1 to 8/30	Area vocational school administrators	Paper for copies	–
4. Area vocational school and feeder school inservice on Program A	8/15 to 8/20	Mr. Phipps	Consultant from Program A, workshop materials	
5. Integrate Program A into student schedules at feeder school and area vocational schools	7/15 to 8/15	Curriculum coordinators and school administrators		–
6. Distribute materials to schools	8/15 to 8/30	Curriculum Coordinators		–
• Installation of Program A				
1. Orientation for students, parents, employers	9/10	Mr. Phipps and curriculum coordinators	Handout materials, press releases	$150
2. Begin use of Program A	10/1	Teachers, counselors		–
3. Monitor use Program A	10/1 to 6/1	The team, Mr. Phipps, and curriculum coordinators		
4. Provide ongoing technical assistance to staff	10/1 to 6/1	Mr. Phipps, curriculum	Program A materials, Program A consultants	$4,200
• Evaluation of Program A (See Evaluation Plan)	3/15 through 6/1 of following year			

FIGURE 4

A SAMPLE PLANNING WORKSHEET

Major activities required to obtain support for implementation	Person responsible	Steps needed to implement product/program	Time line (By:)	Anticipated outcomes	Evaluation methods
Obtain support and approval of participating teachers.	Site coordinator	Meet with teachers.	Sept.	Teachers will examine and approve.	Official approval on file.
Obtain support and approval of administration (principal, superintendent, board of education, etc.).	Site coordinator, team members	Meet with appropriate individuals, provide documentation and rationale.	Sept.	Individuals will go on record and approve.	Correspondence on file.
Obtain support of other groups or individuals (e.g. PTA, community groups, etc.).	Site coordinator	Series of meetings.	Sept. Oct.	Groups will know of new materials to be used and approve.	Meeting notes and/or official approval on file.
Identify role each participating teacher will plan in implementation.	Site coordinator, team members	Series of meetings.		Teachers will become familiar with materials.	Meeting notes and outcomes on file.
Coordinate and inform all faculty of implementation activities.	Site coordinator, team members	Meet with teachers; inform via newsletter, etc.		All faculty will be familiar with materials.	None required
Provide for on-going use of the materials after initial implementation.	Site coordinator, team members, other interested teachers	Meet with team members and other interested teachers.		Participants will justify further implementation or rationale for dropping materials.	Materials evaluated by commercial test or other evaluation method.

SOURCE: James D. Schriner, *Problem-Solving Workshops: A Trainer's Guide.* Lansing, MI: Michigan Department of Education, 1980, p. 58.

Supplementary Resources

Additional Printed Sources

For additional information on both implementation and evaluation planning, you may wish to study several pamphlets developed for the Georgia Department of Education. "Implementation Checklist of Steps" (Preston n.d.) is an easy-to-use checklist that can be used or adapted to a local setting; it covers steps in the preimplementation and implementation planning stages. Two other items, available through the Georgia Department of Education, also are valuable, i.e., an *Evaluation Bibliography* (1979) provides abstracts on publications in the areas of evaluation of innovative practices, checklists, formative or process evaluation, general evaluation issues, and methodological issues; and an *Evaluation Checklist* (1979) provides a step-by-step guide to evaluation that covers goals and objectives, assessment instruments, data requirements, data collection and analysis, monitoring, and reporting.

In addition, the second volume of the Pennsylvania Department of Education's *Pennsylvania School Improvement Program: The Linker's Handbook for Curriculum Improvement Strategies* (1978) has many guidelines and samples of implementation and evaluation planning.

Twenty-eight Techniques for Implementing Innovations are listed and discussed in the appendix.

Figures 4 and 5 below also are valuable planning tools.

FIGURE 5

A SAMPLE IMPLEMENTATION PLANNING CHART IN THE READING AREA

Activity	Staff Responsibility	Materials/ Facilities Additional Personnel	Person Days	Possible Constraints/ Problems
2. Installation of management system	Local Action Team (LAT), reading coordinator, and principal			
2.1 Staff training in use of: a. Skills list b. Criterion Referenced Tests (CRTs) c. Student record-keeping system	Reading coordinator and LAT	2.1 Printed copies of CRTs, skills list, student record forms, duplicating service	2.1 Staff—forty days	2.1 Staff assistance for work involved
2.2 Begin use of system in classrooms K-4 for 1979-80 school term a. Distribute skills list, CRTs, student record forms b. Monitor use of system	Reading coordinator and total staff	2.2 CRTS, skills list, checklist, student record form for all classrooms, duplicating service	2.2 Total school term—total staff—180 days per person	2.2 Maintaining use without upsetting staff with new procedures
2.3 Assess effectiveness of system a. Teacher logs b. Interviews c. Evaluation forms	Reading coordinator, LAT and principal	2.3 Copies of teacher reporting forms, evaluation forms, secretarial help, paper and materials	2.3 Staff—ten days Secretary—five days	2.3 Collecting data without overburdening staff
2.4 Revise system	Reading coordinator, LAT and principal		2.4 Staff—ten days Secretary—five days	2.4 Revise without increasing staff responsibility

SOURCE: Adapted from *Pennsylvania School Improvement Program, Working Papers* (Harrisburg, PA: Pennsylvania Department of Education, 1978).

SECTION V

THE EVALUATION PHASE

Objective:

After finishing this section, the program planner will complete an evaluation plan to assess the effectiveness of the new career awareness program implemented in the area vocational school in the case study.

Purposes:

- To present descriptions and explanations of evaluation procedures
- To provide simulated applications of evaluation procedures

Background Information

Evaluation is an indispensible part of the program improvements process. It is the one source of information that supports the decision to continue, modify, or discontinue a program. Evaluation findings can justify the levels of effort that have been invested, since these data can document improvement in areas of need that initially triggered the process. It is the only way to answer the two important accountability questions: What payoff did we get from our investment? How do we know the payoff was caused by the investment?

Figure 6 illustrates the major steps in program evaluation.

Evaluation Planning

Evaluation should be conducted on both the process of program implementation activities and the outcomes, that is, the observed impact on students, teachers, and administrators. An outline of the major steps in evaluation is illustrated in figure 6. While formative evaluation focuses on what is happening in the program, summative evaluation focuses on outcomes. In the former, evaluators ask whether the program is doing what was expected and whether those involved are actually following the implementation plan. If discrepancies are found between the implementation plan and actual practice, the staff must make necessary modifications in one or the other.

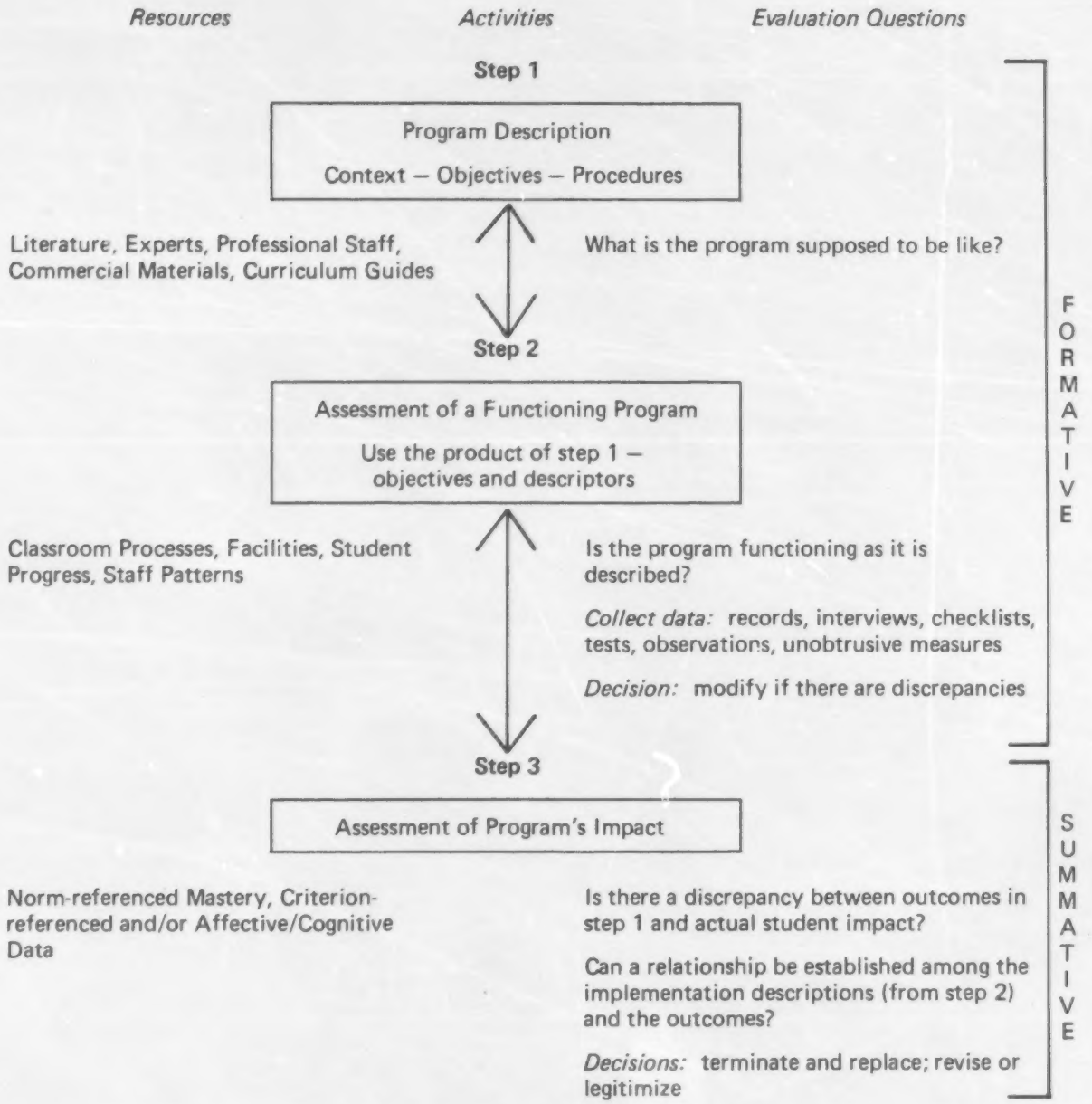
A variety of instruments may be used to gather formative evaluation evidence. Questionnaires, direct observations, checklists, teacher logs, school records, and interviews all are appropriate for gathering such information. The standard of comparison for implementation must be established in advance of the data collection. (For example, it is important to determine the number of students to complete a certain number of lessons each week, or to determine how many teachers use a product X percent of the time, etc.) Instruments to assess these elements must be developed or located. In some cases, the product will include evaluation instrumentation. An evaluation team should be identified to take responsiblity for these activities. These individuals should maintain the schedule, summarize and report information, and revise the evaluation plan as necessary. In addition, it is important to clarify in advance who will receive the evaluation report and what kind of decisions will be based on it.

Summative evaluation, on the other hand, weighs expected outcomes against observed outcomes. Its primary concern is whether the program has a positive impact on students. In this type of evaluation, more complex evaluation methods are used. The primary question to be answered is how much the students (or teachers, etc.) have improved as a result of using the product or practice. The following are important steps to remember when conducting this type of evaluation: select an appropriate design; identify the cognitive and/or affective outcomes; identify the instruments needed for each outcome; set standards for comparison and identify the source of baseline data; identify who will take the test and when; decide the use to be made of data; decide how the data will be analyzed; and decide what will be included in the summative evaluation report.

In many cases, school personnel may be implementing an innovation that does not relate to student achievement. The innovation may involve administrative practices, teacher inservice, or an activity outside the classroom. In such cases, national norms may not be available, although desired standards may be set. At times, information from questionnaires, logs, and interviews provides sufficient data to determine the success or failure of a product or practice.

FIGURE 6

MAJOR STEPS IN PROGRAM EVALUATION


Resources
Activities
Evaluation Questions
Step 1
Program Description
Context – Objectives – Procedures
Literature, Experts, Professional Staff, Commercial Materials, Curriculum Guides
What is the program supposed to be like?
Step 2
Assessment of a Functioning Program
Use the product of step 1 – objectives and descriptors
Classroom Processes, Facilities, Student Progress, Staff Patterns
Is the program functioning as it is described?
Collect data: records, interviews, checklists, tests, observations, unobtrusive measures
Decision: modify if there are discrepancies
Step 3
Assessment of Program's Impact
Norm-referenced Mastery, Criterion-referenced and/or Affective/Cognitive Data
Is there a discrepancy between outcomes in step 1 and actual student impact?
Can a relationship be established among the implementation descriptions (from step 2) and the outcomes?
Decisions: terminate and replace; revise or legitimize
FORMATIVE
SUMMATIVE

SOURCE: Adapted from Pennsylvania Department of Education, *Pennsylvania School Improvement Program: The Linker's Handbook for Curriculum Improvement Strategies* (Harrisburg, PA: Pennsylvania Department of Education, 1978).

It should be noted that many times formative and summative evaluations are assessing the same targets—but for different purposes. There are several generic questions that should be asked when planning both types of evaluation, for example:

- What elements do we need to evaluate?
- What questions need to be answered regarding each element?
- How can we collect data to answer these questions?
- What will our standard of comparison be for each question?
- Who will be responsible for evaluation?
- What will we do with the information?
- When will each evaluation activity take place?

In addition, a number of evaluation questions specifically relate to each type of evaluation. Specific questions dealing with *formative evaluation* are as follows:

- What questions should be asked?
- What critical elements should be evaluated?
- How should we evaluate the critical elements of program implementation?
- Who should be responsible for evaluation procedures?
- What kinds of decisions will be made on the basis of our evaluation?
- What kinds of specific data will we need to make these decisions? (e.g., data on staff training, quality of program activities)
- What instruments are available to obtain and to record the data needed?
- Does the program have procedures built into it that can be used to collect the information?
- Will we find it necessary to construct our own instruments?

Specific questions dealing with *summative evaluation* are as follows:

- When shall we evaluate this?
- How shall we evaluate impact? What kinds of data do we have on hand? What data will we have to collect?
- Who will be responsible for evaluating impact?
- What instruments are available? Where can we acquire the necessary instruments?

Evaluation Instruments

Obviously, some type of evaluation instrument will be needed—whether you are planning for formative or summative evaluation. Figure 7 summarizes the various types of instruments that could be used.

When the decision has been made regarding the type of instruments to be used, the next step is to find or construct an instrument. If you are seeking commercially available instruments, the following questions should be considered:

- Do the items assess the critical elements you are interested in?
- How costly are the instruments?
- Are the instruments valid and reliable? (Do the tests do what they are intended to do? Do they yield consistently accurate results over time?)
- Are the instruments easy to use?
- Are the instruments suitable for the type of person who will be responding to them?

Several questions for constructing program-specific instruments are as follows:

- What is each program element intended to accomplish?
- How is each element intended to accomplish the planning outcomes?
- Several steps in constructing instruments should be considered:
- Decide what type of instrument is needed, e.g., questionnaire, checklist, interview schedule, log, rating sheet, and/or open-ended narrative.
- Decide on type of items, e.g., open-ended, closed response, or a combination.
- Write items that relate to the information you need to gather for each activity (i.e., at least one instrument for each major activity). Be sure directions are clear. Have several persons answer the questionnaire and critique it.
- Critique, analyze, and try out the items. Submit them to others for reactions and revisions. Have several people try out the instrument again and critique it.
- Produce the final version.
- Administer instruments as scheduled in the evaluation plan.

The Evaluation Report

Reports of evaluation findings should be provided to the program director and other decision makers as early as possible so that the results can be used for program decisions. Do not wait until all of the evaluation activities are completed. Provide ongoing interim summaries as each set of data is analyzed. Several important suggestions for the content outline of either an interim or final evaluation report are suggested below:

FIGURE 7

TYPES OF EVALUATION INSTRUMENTS

Type of Instrument	*For Measuring*	*Type of Items*	*Scores*
Standardized norm-referenced tests	Student achievement	Multiple choices True/false	Grade level, percentiles, stanines, raw scores
Criterion-referenced tests (Commercial or self-constructed objective references) Product analysis	Student achievement	Multiple choice Essay, open-ended	Number right, percentage right, categories of responses
Checklists Observation scales, anecdotal records Self-reports Questionnaires	Student attitudes and behaviors	Yes/no Rating scale (1-5, 1-7, 1-9, etc.) Open-ended	Number of positive responses or percentages Number of negative responses or percentages Average score
Self-reports Teacher logs Observation schedules Questionnaires	Program events Instructional practices Teacher behavior Teacher attitudes	Open-ended, multiple choice Yes/no Tally/count of events Rating scale (1-5, 1-7, 1-9, etc.)	Raw scores, total count of positive or expected events or behaviors; categorization of responses, total counts of negative events

SOURCE: Adapted from Pennsylvania Department of Education, *Pennsylvania School Improvement Program: The Linker's Handbook for Curriculum Improvement Strategies*, vol. II. (Harrisburg, PA: Pennsylvania Department of Education, 1978).

- State the purpose of the evaluation and the questions to be answered.
- Describe the program.
- Describe the students and the school.
- For each question in the evaluation design, tell how data were collected. Summarize the data, showing distribution of scores, average scores, or the proportion of students meeting a specified level of achievement.
- Discuss the results and clearly state the answers to each question.
- Make recommendations based on the results.

An evaluation report can be very lengthy and can provide all the data analyses and results; *or* it can be a brief narrative summation with data analyses available for review. Usually a brief summary is sufficient.

Case Study Continued

The team met with Mr. Phipps to complete the final stage of the process, namely, developing an evaluation plan for career awareness Program A. Mr. Phipps provided them with the completed implementation chart and the various evaluation planning questions. The team was ready to complete the evaluation plan for Program A.

Learning Experience #5: Evaluation Planning

After you have read the evaluation checklist and the continuation of the case study, complete Activity #7.

Evaluation Checklist

Milestone Nine: The evaluation design is completed in order to assess the effectiveness of the products and practices selected. This milestone requires designing and planning for evaluation and assessment of the impact on students.

____Step 1. Identify the major program components to be evaluated.

____Materials

____Procedures and activities

____Facilities

____Staff performance

____Administration and management

____Goals

____Students performance

____Scheduling

____Staff training

____Costs

____Step 2. Design the evaluation.

____Specify questions for each major implementation activity.

____Identify techniques to be used for each question.

____Identify respondents.

____Determine appropriate statistical analyses for each question.

____Select or construct instruments.

____Set dates for each data collection.

Milestone Ten: Products and practices are installed. This milestone requires that the implementation plan be followed in order to install the products or practices.

Milestone Eleven: Products and practices are evaluated. This milestone requires timely data collection, analysis, and reporting.

____Step 1. Collect and analyze data.

____Train staff in data collection.

____Distribute testing materials.

____Collect data.

____Prepare data for analyses.

____Summarize data for each program or activity.

____Conduct analyses.

____Complete analyses of data summaries.

____Prepare tables and charts.

____Compare desired program outcomes with evaluation conclusions.

____Compare student and/or program status with baseline data from needs assessment.

____Step 2. Prepare the evaluation report.

____Identify audiences.

____Determine appropriate formats.

____Complete initial draft.

____Review draft and revise.

____Disseminate to appropriate audiences.

Milestone Twelve: Further program management decisions are made. This milestone assumes that the primary purpose of evaluation is to provide information for decision making.

____Step 1. Program decisions are made on basis of evaluation.

____Make formative evaluation decisions: continue and expand; revise and adapt.

____Make summative evaluation decisions: terminate; search for a replacement; return to former program.

Learning Activities

Activity #7: Developing a formative evaluation plan. Using the evaluation planning questions and the implementation answer sheet, complete the evaluation plan for Program A in Chart 14. Use the suggestions below to complete the chart. Check your responses with the suggested answer sheet. Complete Activity #7.

The following points should be considered when completing the evaluation chart:

- What is to be evaluated? This first column in the chart is completed by selecting critical elements from the implementation plan.
- Questions that must be answered about each element are included in column 2.
- How the information will be collected is inserted in column 3, e.g.,

— Questionnaires—Who will respond? Will the questionnaire concern attitudes, programs, or both? (All items should reflect activities and procedures specified in the program plan.)

— Observations—Who will be observed? Who will observe?

— Checklists—Who will respond? (Items should reflect program objectives.)

— Teacher logs—(Items should reflect critical student and teacher activities.)

— School records—Absenteeism reports, data on dropouts, etc.

— Interviews—Who will be interviewed? Who will conduct the interviews?

- How the data will be analyzed and reported is inserted in column 4.

CHART 14

EVALUATION PLANNING CHART

1 *Description of Program Activity*	2 *Evaluation Questions*	3 *Type of Evidence*	4 *Data Analysis*
1. Preparation for installing career awareness Program A.			
1.1 Order materials	1.1	1.1	1.1
1.2 Correlate current program with Program A	1.2 Were the materials correlated with current career awareness program?	1.2 Analysis of completed inventory of current materials keyed to Program A by the staff using checklists	1.2 Summary of staff responses on checklist to evaluate the inventory
1.3 Initiate public relations releases on Program A	1.3	1.3	1.3
1.4 Area vocational school and feeder school inservice	1.4	1.4	1.4
1.5	1.5	1.5	1.5
1.6	1.6	1.6	1.6
2. Installation of Program A.			
2.1 Orientation for students, parents, employers	2.1	2.1	2.1
2.2 Begin use of Program A	2.2	2.2	2.2

CHART 15

EVALUATION PLANNING CHART: SUGGESTED ANSWER SHEET

1 *Description of Program Activity*	2 *Evaluation Questions*	3 *Type of Evidence*	4 *Data Analysis*
1. Preparation for installing career awareness Program A			
1.1 Order materials	1.1 Were the materials ordered and received by target date?	1.1 Monitoring of activity by area vocational school director	1.1 Summary report of materials inventoried
1.2 Correlate current program with Program A	1.2 Were the materials correlated with current career awareness program?	1.2 Analysis of completed inventory of current materials keyed to Program A by the staff using checklists	1.2 Summary of staff responses on checklist to evaluate the inventory
1.3 Initiate public relations releases on Program A	1.3 How accurate were the releases? Were they released at appropriate time?	1.3 Review of releases by the team	1.3 Summary report of team review
1.4 Area vocational school and feeder school inservice	1.4 Did the staff attend the inservice? Did they meet their objectives?	1.4 Review of roster of participant questionnaires and interviews constructed by the team	1.4 Summary report of pre/post workshop questionnaires showing changes in attitudes and knowledge
1.5 Integrate Program A into student schedules at feeder school and area vocational schools	1.5 Was Program A integrated into ongoing instructional program for students?	1.5 Review program schedules of schools	1.5 Summary of the rate of expected use with students
1.6 Distribute materials to schools	1.6 Were Program A materials accessible to each participating staff person?	1.6 Checklist inventory of materials delivered to participating staff	1.6 Report of number of incomplete sets of materials, undelivered sets, materials sent to wrong site, etc.
2. Installation of Program A			
2.1 Orientation for students, parents, employers	2.1 Were orientation sessions held? How effective were they? Who attended?	2.1 Team constructed evaluation form for participants; records of attendance	2.1 Item analyses of participant evaluation forms, categories, and number of participants

CHART 15 – Continued

1 *Description of Program Activity*	2 *Evaluation Questions*	3 *Type of Evidence*	4 *Data Analysis*
2.2 Begin use of Program A	2.2 How frequently and consistently were Program A materials used? Was Program A properly utilized?	2.2 Teacher and student logs constructed by team; interviews and questionnaires provided as part of	2.2 Summary data from teacher and student logs; item analyses of questionnaires and interviews
2.3 Evaluate Program A	2.3 Were all of the questions addressed? Did data collection and analysis occur? Were reports produced in time for decisions?	2.3 Monitoring of the evaluation activities by the team	2.3 Not applicable

Final Note

You have completed a formative evaluation plan for Program A. While the summative evaluation plan would use the same procedures, the focus would be on such outcomes as impact on students, staff, course enrollment, employment patterns, and the like.

You also have completed the critical steps in the program improvement process and now have access to the major content of a plan for career awareness in the area vocational school and the documentation of its validity. With the addition of a narrative introductory explanation and a line-item budget, the plan is complete.

Supplementary Resources

Evaluation handbooks. The following two resources are valuable for assessment activities: Franchak and Spirer (1978) included specific techniques, legislation requirements, development of forms and instruments, guides for interpreting data, and alternatives for reporting. Franchak and Spirer (1979) also developed a handbook that examined context, definitions, and strategies; they identified current problems and issues along with existing practices that have proven to be successful.

Additional resources. Three other items, available through the Georgia Department of Education, also are valuable. (Two of these sources were cited in the implementation section but, because of their relevance, should be repeated here.) The three items are as follows:

- *Evaluation Bibliography* (1979)—This annotated bibliography is intended to provide selected references that complement the *Evaluation Checklist*, *Evaluation Guide*, and other materials. The bibliography does not purport to be exhaustive but, rather, serves to suggest alternative resources. Included in this document are entries under the following headings: evaluation of innovative practices, checklists, formative or process evaluation, general evaluation issues, and methodological issues.

- *Evaluation Checklist* (1979)—This forty-five item checklist is a step-by-step guide to evaluation that includes sections on purposes, goals and objectives, assessment instruments, data requirements, data collection, data analysis, monitoring, and reporting.

- *Evaluation Guide* (1979)—The purpose of the guide is to explain and describe each task listed in the *Evaluation Checklist*. References for additional help in planning and conducting an evaluation are listed in the *Evaluation Bibliography*.

In addition, the following useful documents are listed in the additional readings section of the references: Adams and Walker (1979), Easom et al. (1978), Nickens, Purga, Noriega (1980), and Wentling (1980).

SECTION VI

SUMMARY

This handbook is not so lengthy that it requires an elaborate summary of the four problem-solving phases for program improvement, or the twelve milestones, or, for that matter, of any of the detailed lists of questions and guidelines. There are, however, two possible exceptions where there is a need to highlight a point. We do need to go back and underscore two fundamental milestones. Milestone One stressed that the priorities and goals of the school district be identified or, if they are not present, that they be developed. Milestone Two stressed that the school district commit itself to participate in the program improvement process. Without these essentials, the process is merely a useless notion that goes nowhere or is busy work, as we termed it.

The second point that bears repeating is the idea that this handbook is a tool, a vehicle that is intended to provide the user with information and suggestions to apply to the program improvement process in an actual school setting. The milestones and the related steps are adapted from field-tested projects. They are intended to be a guide to the program planner. A review and adaptation of them in your local planning situation would serve as a useful tool to guide the program improvement process.

For a convenient review the twelve milestones and related checklist have been assembled as part of this summary on the following page.

We have attempted to be as concise, yet as comprehensive, as possible. We trust you will find the handbook helpful in your work.

Twelve Milestones

PRELIMINARY ACTIVITIES

1. The priorities and goals of the school district are identified and/or developed.

2. The school district commits itself to participate in the process.

   (Note: All of the school-level milestones below relate to the priority areas identified at the district level.)

NEEDS ASSESSMENT

3. Target area of need is identified. (This milestone is based on the notion that successful program improvement must focus on clearly defined problems.)

   ____Step 1. The existing school data in priority areas are gathered.

   ____Step 2. Data are summarized and analyzed.

   ____Step 3. The school profile is prepared, including all available background data.

   ____Step 4. The first needs assessment meeting of the team is conducted.

   ____School data summaries and profiles are reviewed.

   ____Team reacts to all data.

   ____Step 5. The general needs statement is prepared. This will define the school target area to be improved.

4. Specific in-depth needs are identified in the target area. (This milestone is achieved through a comprehensive analysis of the current status efforts in the target area, in order to identify specific needs that are causing problems.)

   ____Step 1. Program materials are analyzed.

   ____Interest levels

   ____Variety

   ____Compatability with area vocational school goals in the target area

   ____Availability

   ____Quality (Is it up to date? Is it comprehensive? Are the reading levels appropriate?)

   ____Step 2. Major elements in the target area are analyzed, using questionnaires, interviews, and observations.

____Administration and management

____Staff development

____Student services

____Instructional program

____Step 3. Data from Steps 1 and 2 are analyzed and summarized.

5. A detailed needs summary is prepared for the target problem area. (This milestone is achieved by reviewing all the data produced in both Needs Assessment Levels One and Two.)

____Step 1. The needs assessment summary is prepared.

____Review all previously summarized materials.

____Review data summaries on administration and management, staff development, student services, and instructional programs .

____Review the general needs statement from Level One.

____Prepare a summary chart for the target area

____Step 2. The total area vocational school staff reacts and accepts the summary chart.

____Reach a consensus on needs to address in the search and selection process.

SEARCH AND SELECTION

6. Alternative products and practices are identified. (This milestone requires matching the school needs identified in milestone five with a set of available products and practices.)

____Step 1. Generate the selection criteria from the needs assessment summary report.

____Step 2. Locate the major sources of alternative products and practices.

____Step 3. Search the resource pool for a set of approximately ten products that match the criteria.

7. Products and practices are selected for installation. (This milestone requires extensive screening and evaluation of a group of alternative products and practices in order to find the best "fit" between school needs and one of the products and practices.)

____Step 1. Review the products.

____Screen the set using the selection criteria.

____Eliminate all but three or four products.

____Step 2. Select the product or practices.

____Consider the total staff rating of the products.

____Prepare the summary of ratings.

____Select the products (or practices) to be installed.

____Or alternative Step 2. If all the products are rejected, begin a curriculum development process, a development process for management activities, and similar activities as needed.

____Identify the process.

____Develop a plan to implement the process.

____Initiate the process.

IMPLEMENTATION

8. The implementation plan for the products and practice selected is prepared and approved. (This milestone requires that a detailed plan for installation be produced and approved.)

____Step 1. Determine the content of the plan.

____Major activities

____Facilities

____Equipment

____Staff requirements

____Staff training

____Staff responsibilities

____Time lines

____Costs

____Step 2. Complete the drafting of the plan.

____Write program description.

____List major activities.

____Complete details of the plan.

____Write the actual plan.

____Select a director for implementation.

____Complete implementation chart.

____Major tasks

____Person assigned to each task

____Target dates

____Cost

____Step 3. Submit plan to the school board.

____Step 4. Negotiate terms of funding.

____Step 5. Secure approval.

EVALUATION

9. The evaluation design is completed in order to assess the effectiveness of the products and practices selected. (This milestone requires designing and planning for evaluation and assessment of the impact on students.)

____Step 1. Identify the major program components to be evaluated.

____Materials

____Procedures and activities

____Facilities

____Staff performance

____Administration and management

____Goals

____Students performance

____Scheduling

____Staff training

____Costs

____Step 2. Design the evaluation.

____Specify questions for each major implementation activity.

____Identify techniques to be used for each question.

____Identify respondents.

____Determine appropriate statistical analyses for each question.

____Select or construct instruments.

____Set dates for each data collection.

10. Products and practices are installed. (This milestone requires that the implementation plan be followed in order to install the products or practices.)

11. Products and practices are evaluated. (This milestone requires timely data collection, analysis, and reporting.)

____Step 1. Collect and analyze data.

____Train staff in data collection.

____Distribute testing materials.

____Collect data.

____Prepare data for analyses.

____Summarize data for each program or activity.

____Conduct analyses.

____Complete analyses of data summaries.

____Prepare tables and charts.

____Compare desired program outcomes with evaluation conclusions.

____Compare student and/or program status with baseline data from needs assessment.

____Step 2. Prepare the evaluation report.

____Identify audiences.

____Determine appropriate formats.

____Complete initial draft.

____Review draft and revise.

____Disseminate to appropriate audiences.

12. Further program management decisions are made. (This milestone assumes that the primary purpose of evaluation is to provide information for decision making.)

____Step 1. Program decisions are made on basis of evaluation.

____Make formative evaluation decisions: continue and expand; revise and adapt.

____Make summative evaluation decisions: terminate; search for a replacement; return to former program.

APPENDIX

TOOLS FOR EDUCATIONAL CHANGE:
Twenty-Eight Techniques for Implementing Innovations

This section of the handbook is intended to be used with the procedural guidelines (steps one through seven). However, there appears to be a demand for these twenty-eight implementation techniques. They are packaged separately with the understanding that other sections of the handbook are needed for adequate interpretation and use of the techniques.

The appearance of any technique in this handbook *does not* imply endorsement by the authors, the National Center for Research in Vocational Education, or the sponsor. The techniques represent tools that are used to influence other people in the world today. Their application and use is a highly individual matter depending upon the skill of the advocate, the conditions in the career education implementation environment, and the likely outcome of the use of the technique. The use of these techniques is non-prescriptive: an assessment of the effect of each technique should take place before another is used.

The techniques have been ordered from the most informative to the most directive by the authors. The *informative* techniques take more time and provide a great deal of freedom for many types of responses. The *directive* techniques limit the activities of subordinates; they can be carried out in a relatively brief period of time. *Persuasive* techniques have many uses by project directors because they are effective under many different conditions.

It should be emphasized here that the organization of the techniques into the three modes evolves from the nature of the techniques and how they are used.

The techniques are arranged within three categories, or *modes*. The techniques also move logically, though perhaps not always sequentially, from one mode to the next. They progress in *nature* from low to high severity, and in use from thoughtful care to extreme caution.

The three modes include the following grouping of implementation techniques.

Informative	Persuasive	Directive
1. Printed Information	11. Personal Interview	25. Deadlines
2. Audiovisual Material	12. Role Playing	26. Legal Mandate
3. Mass Media	13. Cooperation	27. Fait Accompli
4. Lecture	14. Staff Development	28. Strategic Replacement of Staff
5. Symposium	15. Differentiated Staffing	
6. Demonstration	16. Involvement in Product Development	
7. Survey Feedback	17. Small-Scale Use of the Innovation	
8. Discussion	18. Competition	
9. Brainstorming	19. Bargaining	
10. Consultation	20. Promotion of the Product	
	21. Endorsement by Authorities	
	22. Recognition of Trial Users	
	23. Financial Incentive	
	24. Overstatement	

Adapted from: William L. Hull and N. L. McCaslin, *Career Education Implementation: A Handbook for Strategy Development* (Columbus: The National Center for Research in Vocational Education, The Ohio State University, 1977).

The *definitions* section offers brief overviews of the three categories. This section explains the modes into which the techniques fall, and discusses the degree of severity and use of the techniques within the modes. The section also suggests how to proceed from one mode to another to better encourage the mutual understanding and dialogue that contribute to effective advocacy and capacity for change.

The *technique cards* provide further discussion. They also include explanations of advantages and disadvantages regarding product, client, and advocate, and will offer advice for realistic, active use of each technique.

DEFINITIONS

Informative Mode

Informative techniques provide bases for considering the merits of the innovation. This raises the consciousness of clients and orients them to factors involved in implementing new ideas. These techniques are not, and should not, in any way be used authoritatively. Clients must not see them as "control maneuvers," or even as persuasion. Clients should see these techniques primarily as ways of receiving information that addresses their particular local situations and individual needs. Progression from one technique to another in this mode should involve consideration of the second *Persuasive Mode*. That is, clients engaging in any one of the informative techniques should be aware of the next step toward implementation, advocacy, and change: that of being open to techniques that can persuade persons to become involved in actual product and program competition, development, promotion, bargaining, and cooperation to achieve objectives.

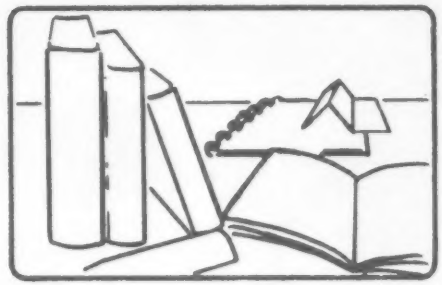
Persuasive Mode

Persuasive techniques involve communication between client and advocate in which the advocate takes on greater responsibility for maintaining dialogue and promoting product and program acceptance. The client, however, must not perceive these persuasive techniques as coercive measures; the advocate must be extremely careful that his/her "persuasive" actions do not evolve into injunction and mandate. In this mode, the client must see himself/herself as becoming capacitated to meet personal as well as program objectives.

Directive Mode

Directive techniques limit the options open to the client. They can be truly effective only if the client has progressed through informative and persuasive stages. *Extreme caution* must be used with these techniques in order for clients to feel *realistic* capacity to implement change that meets their specific needs. Clients must view directive techniques as "real world" decisions, charges, and constraints with which they must deal in responsible and human ways. Sanctions, mandates, and specific staffing decisions can disrupt progress toward advocacy, implementation, and change. Or, they can successfully confront individuals with necessary compliance with program needs.

1. PRINTED INFORMATION: brochure, article, announcement, newsletter



Printed information refers to any type of message in print, whether it is a newspaper article to the general public or a brochure aimed at selected teachers on the professional staff.

DISCUSSION

Printed information allows the client to take it home, share it with others, and re-read the message. It is an extremely valuable tool for developing ideas among professionals and lay persons alike. You, as the advocate, have an opportunity to word your message carefully and appeal to the rational thinking of individuals. Printed information can be used for mass audiences (to reach persons in the community), or it can be targeted to a very specific client, e.g., a memo to a principal in a school building.

The astute vocational education project director will find many ways to use printed information wisely. Rational information in a daily or weekly newspaper provides a means of explaining why the public should support vocational education.

THE TECHNIQUE IN ACTION

Frequently, it becomes necessary to establish continuing communications with individuals who are involved in implementing vocational activities. A means for doing this is the weekly newsletter which updates people on dates and creates awareness of the product being implemented.

ADVANTAGES

As it relates to the product. Printed information provides an opportunity for the advocate to describe the product accurately and to provide cues for its use in the community.

As it relates to the client. Printed information allows the client to study comments from the advocate and others carefully at times convenient to the client. It also provides documentation for action taken both by the client and the advocate.

As it relates to the advocate. Printed information allows the advocate to release ideas selectively to clients over a period of time. That is, an advocate may wish to convey a simple message early in the implementation process; later, the message may become complex as the problems of implementation become more obvious.

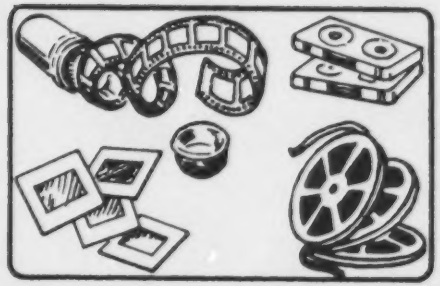
DISADVANTAGES

As it relates to the product. It may not be possible to adequately explain the merits of the product in the space available.

As it relates to the client. There may be a tendency for the client to misunderstand the message or become unnecessarily excited about the prospect of using the innovation. This excitement can take the form of expecting too much from the innovation. Or clients may become apprehensive.

As it relates to the advocate. The printed message must be free of technical or social biases since it becomes documented communication with the client. Advocates may find it difficult to take time to write the necessary printed messages.

2. AUDIOVISUAL MATERIAL: filmstrip, slide, tape



This technique utilizes equipment which appeals to the sense of sight as well as sound.

DISCUSSION

The films and tapes may take many forms, e.g., videotape, 16 mm film, etc. The message is consistent, and it provides the opportunity for a uniform quality control. Clearly, an audience will retain more of the message when they "see" the content as well as hear the speaker. Audiovisual presentations are cost effective for reaching similar audiences in different locations. They can be packaged and synchronized to a taped script for easy transportation. A slide presentation provides additional flexibility when compared with a filmstrip. Slides may be adapted to fit the local setting.

THE TECHNIQUE IN ACTION

A meeting of a local civic association would be an excellent opportunity for the showing of a slide/tape presentation. It combines the flexibility of conducting a small-group meeting with the polished format of a presentation prepared in advance.

ADVANTAGES

As it relates to the product. An audiovisual presentation usually provides the best opportunity to discuss characteristics of the product. Photographs may be taken which add to the written or spoken message.

As it relates to the client. Clients' attention is increased with the use of posters, slides, or other art work. The message in an audiovisual presentation usually is retained longer by the audience.

As it relates to the advocate. Audiovisual material gives the advocate a transportable vehicle for conveying information to diverse audiences in different settings. It can be used by individuals who have a limited knowledge of vocational education.

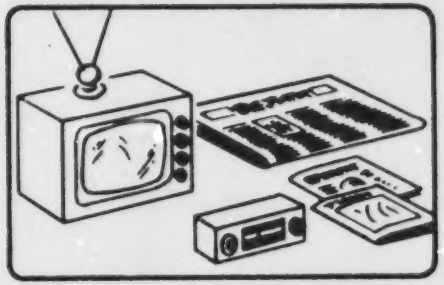
DISADVANTAGES

As it relates to the product. The audiovisual presentation requires time and money which could be used in other product implementation activities.

As it relates to the client. A programmed audiovisual presentation with a script prepared in advance tends to limit the opportunity for questions and discussion.

As it relates to the advocate. It may be tempting for the advocate to use an expertly done audiovisual presentation which is obsolete or irrelevant to the audience.

3. MASS MEDIA



Mass media is defined as television spots, radio announcements, newspaper articles, or other means of conveying a uniform message to a large and diverse audience.

DISCUSSION

Advocates use different media for influencing various audiences. The use of television or newspaper articles as a means of communicating relatively standard messages to large audiences is very cost effective. The need for public information about vocational education. occurs during the initial phases of a project or when there is a need to communicate the results of a survey. Hopefully, there will be many reasons to communicate vocational education activities to the public. The names of students and teachers involved in activities should be kept before the public. Professional journals may be used to communicate with other experts across the nation, but they would be of little benefit, for example, when informing local taxpayers of plans for expanding vocational education.

THE TECHNIQUE IN ACTION

Mass media is an efficient means of informing the local community. Newspaper articles can be used to make community members aware of vocational education in the school system. This awareness becomes particularly vital to the success of the program as students are placed in industry and businesses. To a lesser extent, this technique can be used to influence school staff members who are living in the community.

ADVANTAGES

As it relates to the product. Mass media provides an excellent means of conveying the relative advantage of vocational education in contrast to other forms of education. Documented facts and figures are welcomed by newspersons.

As it relates to the client. Clients are able to obtain a maximum amount of information with very little effort on their part.

As it relates to the advocate. Mass media can be an effective measns of extending the advocate's influence to the community and the public in general.

DISADVANTAGES

As it relates to the product. The public could be led to expect more than the product is designed to deliver. This potential disadvantage can be controlled by the advocate's release of factual information with careful attention to any comment about future events.

As it relates to the client. The client does not always know about the authenticity of the information provided through mass media sources. This is why it becomes desirable to solicit interest on the part of the community members to become involved in the project, thus obtaining first-hand information for themselves.

As it relates to the advocate. The message transmitted via mass media channels must be standardized with little opportunity for targeting the content to specific groups. Once information has been released to a community via mass media channels, it becomes very difficult to retract.

4. LECTURE

A lecture is a talk given before an audience to provide information about the innovation.

DISCUSSION

It is easy to overuse the lecture technique because the project director usually has a better knowledge of vocational education than members of his or her staff or the clients in the school or community. There are times when a lecture is the most appropriate means of communicating with groups of people. However, implementation of a product usually requires interpersonal communication with an opportunity for the listener to raise questions and provide comments for the speaker. Small groups, rather than large groups, are the rule. Informal, spontaneous communication is more likely to influence others rather than formal comments prepared in advance of the meeting.

THE TECHNIQUE IN ACTION

Early in the history of any project it becomes necessary to convey a large amount of information to a large audience in a limited amount of time. Frequently, the setting for such an occasion is an auditorium with most of the teachers from a given school present. The innovations may be introduced using the lecture technique to create awareness of vocational education among many persons at the same time.

ADVANTAGES

As it relates to the product. The lecture method provides an opportunity for the advocate to explicitly discuss the merits and problems of the product. The notes can be prepared in advance, free of interruption and questions by the client.

As it relates to the client. The client has an opportunity to obtain a vast amount of information in a short length of time by the lecture method.

As it relates to the advocate. The advocate of vocational education, e.g., the speaker in a lecture situation, has an opportunity to convey feelings and impressions as well as information through the lecture method.

DISADVANTAGES

As it relates to the product. Unless lecturer is completely familiar with the product, he/she may not communicate its merits to the audience.

As it relates to the client. There is little opportunity for the client to take notes or remember what is said in a lecture without supplemental material being distributed.

As it relates to the advocate. The lecture must be prepared in advance and exhibit authoritative information about vocational education. It requires organization and technical knowledge on the part of the advocate.

5. SYMPOSIUM

A symposium is defined as a meeting where several speakers deliver a presentation on a common topic to an audience.

DISCUSSION

The purpose of a symposium may differ depending on the stage of implementation. It may be used to inform an audience of the merits of a vocational education activity during early stages of adoption, or to explain new alternatives to the use of the product. An opportunity would be provided to raise questions with the speakers following each presentation. The assignment of specific topics, and/or varying points of view which are deliberately represented, makes the symposium a more formal meeting than discussion or brainstorming sessions.

THE TECHNIQUE IN ACTION

The symposium may be used to clarify or reinforce reasons for adopting a vocational education activity. Or it may be presented as a debate over alternative implementation strategies.

ADVANTAGES

As it relates to the product. The symposium allows the product to be fairly represented in formal discussion since topics are frequently assigned in advance.

As it relates to the client. The technique allows for all sides of an issue to be discussed for the benefit of a mass audience. The user's point of view should be represented.

As it relates to the advocate. The symposium can be used to divert pressure on the advocate to endorse one position or another. Implementation decisions may become the object of the symposium, allowing the advocate to take a neutral position.

DISADVANTAGES

As it relates to the product. Discussions of the product during the symposium are influenced by the capability of the speaker.

As it relates to the client. The client views (which are different from those of the advocate) must be determined and assigned to speakers in advance of the symposium dates. It may be difficult to do this; and therefore, the client may not be farily represented.

As it relates to the advocate. The symposium may place the advocate at a disadvantage in formulating an implementation strategy. This is particularly true if a well-known and respected symposium speaker recommends a policy or procedure which is opposed to the one being followed by the advocate.

6. DEMONSTRATION

Demonstration is the use of vocational education materials and procedures as examples to illustrate their value to others.

DISCUSSION

Demonstrations are most effective when the viewers come from schools and communities which are similar to the demonstration site. Such a "match" is not always possible, but speakers should take every opportunity to relate to the backgrounds of the audience. The demonstration may be used effectively to create awareness of potential vocational education opportunities. It may require travel to another school to observe aspects of the curriculum in operation. Effective use of the demonstration requires preparation prior to and following the visit. The advocate should tell the observers what to look for in the demonstration setting. A debriefing session should be held following the trip. This will reinforce observations at the site and assist the clients in making use of the information in their own setting.

THE TECHNIQUE IN ACTION

A vocational education technique such as the use of a community resource person to explain a class of occupations present in the community may be demonstrated to teachers in a number of ways: (1) teachers may be invited to observe a class with a resource person, or (2) a "simulation" could be held with the resource person discussing comments he or she plans to make in front of a class. Another example of the technique is the use of a teacher to demonstrate materials in the classroom.

ADVANTAGES

As it relates to the product. A demonstrated use of the product removes doubts about its practicality and appropriateness for specific settings.

As it relates to the client. Individuals can see for themselves the effectiveness of the product for students. Usually, opportunities are provided to ask and answer questions posed by the client.

As it relates to the advocate. The demonstration provides a real-life opportunity for advocates to promote vocational education in a natural setting. It is possible to capture the spontaneity of pupil-centered learning by involving students in the demonstration.

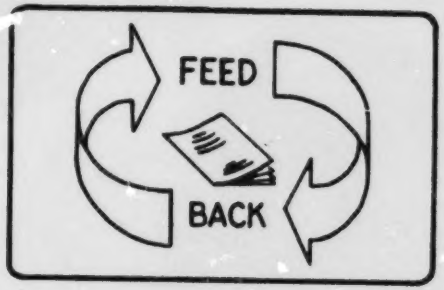
DISADVANTAGES

As it relates to the product. There may not be time or opportunity to observe the entire product during the demonstration. The demonstration site conditions may not allow all aspects of the product to be exhibited.

As it relates to the client. The cost of visiting a demonstration site in another school may be prohibitive. If teachers must be away from their classrooms, substitutes must be found.

As it relates to the advocate. There may be a tendency for the advocate to relax implementation efforts once teachers and others have observed for themselves the effectiveness of the product. However, research clearly indicates the need for technical support on the site where implementation takes place.

7. SURVEY FEEDBACK



Survey feedback suggests a two-step process of (1) conducting a survey and (2) reporting the results back to the respondents.

DISCUSSION

This technique involves the use of a questionnaire or other device for obtaining a broad base of information from clients over a specified time period with a report of the summarized data. This technique assures clients of some return on their investment of time and energy while responding to the questions. Surveys are important in the formulation of a diffusion strategy because (1) they allow the advocate to sample a broad base of opinion relative to the acceptance of vocational education, and (2) they provide an opportunity to involve the client in a participatory experience. Survey feedback is a means of collecting information for rational decision-making.

THE TECHNIQUE IN ACTION

Survey feedback could be used in the solicitation of opinions from the community on the desirability of vocational education activities. This information could become extremely valuable in uncovering potential pockets of resistance to occupationally-oriented programs in vocational education.

ADVANTAGES

As it relates to the product. Survey feedback may identify conditions in the school system or community which require revisions in the product.

As it relates to the client. This technique allows clients to respond to suggestions by the change advocate. Their willingness to accept innovative activities may be influenced by the knowledge gained by reading the survey report.

As it relates to the advocate. This technique allows the advocate to promote vocational education and communicate the results of "collective" decision-making.

DISADVANTAGES

As it relates to the product. None.

As it relates to the client. Rarely will the client have enough information provided to make meaningful suggested changes in the vocational education product or implementation procedures. He/she always will be responding from a limited information base.

As it relates to the advocate. The use of a survey in the development of an implementation strategy requires time for responses to be summarized, interpreted, and disseminated. This additional burden may distract the advocate from more important planning decisions.

8. DISCUSSION

This technique is defined as conversation or informal debate among clients or between an advocate and a client.

DISCUSSION

A discussion may be conducted in small group meetings which allow opportunities for participants to engage in a dialogue with the advocate. Comments are relatively spontaneous and informal. Rarely does discussion by itself lead to the resolution of stated problems. The technique should be viewed as a means of creating awareness of implementation problems, and, to a degree, formulating alternative solutions. The use of reason and/or argument may become prevalent in a discussion. Positions may be stated and views expressed. The opportunity for criticism of others ideas is present.

THE TECHNIQUE IN ACTION

Teachers in a school building may be asked to discuss the occupational goals held by most students upon graduation from high school. In this way they may recognize the value of vocational education.

ADVANTAGES

As it relates to the product. The discussion should allow maximum opportunity for all aspects of the product to be reviewed. Both critics and proponents of vocational education should be present.

As it relates to the client. Small-group discussion can be an effective follow-up to mass media presentations. It provides an opportunity for teachers and others to share their impression of vocational education.

As it relates to the advocate. Discussion can provide for the formulation of implementation strategies. It provides a vehicle for leaders in business and industry to give the advocate advice on how to approach teachers and others who are important to the employment of vocational education graduates.

DISADVANTAGES

As it relates to the product. The characteristics may be unfairly represented by an over enthusiastic critic or proponent in the discussion group.

As it relates to the client. Discussion which is overly argumentative can become devisive and can polarize the client in his/her future activities with the advocate.

As it relates to the advocate. Discussion groups take time and require preparation. It may not be possible for the advocate to participate in as much discussion of the product as he or she desires.

9. BRAINSTORMING

Brainstorming refers to the use of small groups to generate bright, potentially useful ideas.

DISCUSSION

The technique works best in groups of three to seven individuals. Sometimes it is desirable to declare a moratorium on all criticism. Particularly, this may be done in the early stages of the interaction to allow all possible ideas to be suggested to the group. This may result in some unique contributions from staff members which, with revision, could lead to novel solutions of a problem. The technique is not designed to answer questions; rather, it is an attempt to solicit new and varied suggestions from persons with different backgrounds and competencies.

THE TECHNIQUE IN ACTION

There are many opportunities to solicit new ideas via the brainstorming technique during the implementation process. For example, the vocational education staff may be called together to suggest ways to approach the business community for placement of more students in work-study situations. Another example of this technique would be the use of elementary school teachers to suggest alternative methods for incorporating an instructional package into the curriculum.

ADVANTAGES

As it relates to the product. Brainstorming sessions may reveal unique and appropriate ways of applying vocational education to the local setting. Such assistance to the advocate could result in major adaptations of the product.

As it relates to the client. This technique allows for involvement by potential users of vocational education. They have the opportunity to contribute meaningful suggestions for implementation which are likely to facilitate acceptance of the product.

As it relates to the advocate. Brainstorming assists the advocate in formulating implementation strategies. It casts him/her in a helper role which should increase rapport with the client audience.

DISADVANTAGES

As it relates to the product. Some of the product applications suggested may not be appropriate. If used, such changes could destroy the benefits of vocational education.

As it relates to the client. Clients may leave the brainstorming session somewhat frustrated since no attempt is made to reach consensus. Participants in brainstorming are viewed as advisory only in the formulation of implementation strategies.

As it relates to the advocate. The advocate must be sufficiently open-minded to consider the sometimes novel ideas suggested by the clients.

10. CONSULTATION

Consultation refers to the act of giving advice to a client, usually at the client's request.

DISCUSSION

Consultation may include a wide range of activities such as diagnosing the situation, refining a request for information, or adapting the product to unique needs of the local situation. It is used most frequently in the initial phases of the project to conceptualize and evaluate needed changes in the product or the adoption situation. This collaborative endeavor between a change advocate and a client may be used to encourage friendship and trust. It may be used to influence the outcome of a decision; but, usually, the consultant conveys information about the product or adoption situation in an objective manner. Consultation occurs most frequently on a one-to-one basis. However, a consultant may be invited to work with a group of teachers during in-service education.

THE TECHNIQUE IN ACTION

Consultation is especially useful in obtaining highly specialized expertise which is not available among project staff. A vocational education project director may wish to use consultation in the design of procedures to assess the impact of the project on student growth and development.

ADVANTAGES

As it relates to the product. Some products require adaptation to site conditions as they are being implemented. It is natural and desirable to call in the developers of the product to consult with local school officials for changes to be made in the product.

As it relates to the client. Most clients view consultation as an excellent means of communicating their needs to advocates of a new program. It provides a forum for discussion of ideas which can effect the local situation as well as changes in the product.

As it relates to the advocate. It is to the advocate's advantage to consult with clients and experts whenever possible. It provides information to the advocate as a basis for project implementation decisions. During the consultation, the advocate has an opportunity to establish rapport with the client and others involved in the implementation process.

DISADVANTAGES

As it relates to the product. Unless the consultant has been previously associated with the product, he or she may have some difficulty in understanding the product in the time available.

As it relates to the client. The consultant may be perceived as an outsider who does not understand the problems and concerns of the persons who must use the product. The consultant may have limited knowledge of the actual needs of the clients.

As it relates to the advocate. The consultant may give the advocate unsound advice, or the consultant may be critical of the advocate's implementation procedures.

11. PERSONAL INTERVIEW

This technique consists of an interpersonal conversation between two persons, an advocate and a client.

DISCUSSION

The personal interview allows for much freedom and flexibility when discussing vocational education. Usually, the interview takes place in an office or teachers' lounge. Relative privacy is assured. Both the advocate and the client (parents, teachers, administrators) should feel free to express themselves. A personal interview provides an opportunity for the advocate to build a personal relationship with the client. This should lead to mutual trust and incremental goal setting for the implementation process.

THE TECHNIQUE IN ACTION

It sometimes becomes necessary to obtain the attention of the decision-maker in the school system. Building principals and persons in the superintendent's office are busy. An advocate should make an appointment with the administrator and show him or her the courtesy of an individual, private conversation.

ADVANTAGES

As it relates to the product. The personal interview provides an opportunity for close scrutiny of vocational education. Specific objections and/or benefits may be raised in an atmosphere of mutual trust and consideration.

As it relates to the client. The personal interview may be scheduled at the discretion of the client. This convenience and special attention may result in more favorable response to the advocate's demands.

As it relates to the advocate. It provides a unique opportunity to display the benefits of vocational education in the atmosphere of the client's office or home. This setting allows the advocate to observe informational and other professional needs of the client.

DISADVANTAGES

As it relates to the product. It is not always possible to transport the product to a private office or home setting. Therefore, it may become necessary to use photographs or other information when explaining vocational education to the client.

As it relates to the client. None.

As it relates to the advocate. Use of the personal interview technique requires a great deal of time and a sense of timing on the part of the advocate. An inexperienced advocate may not be able to organize his/her schedule sufficiently to effectively utilize this technique.

12. ROLE PLAYING

The assignment of a position or function to an individual for the purpose of acting out a simulated situation.

DISCUSSION

Vocational education requires nontraditional roles and duties for school staff members, e.g., the visitation of school staff to businesses for the supervision of student-employees. Such duties may require school staff members to change familiar routines. Role playing is a useful technique for the purpose of sensitizing staff to the problems and barriers they are likely to confront in new situations. Occasionally, the technique can be used to aid a staff member with problems he or she is having on the job. However, the use of the technique as a therapeutic device should occur only under the supervision of a highly qualified individual. It is not recommended for use in this manner by vocational education advocates.

THE TECHNIQUE IN ACTION

Frequently, the implementation of vocational education requires individuals to be placed in new and unfamiliar roles. Former teachers may be asked to become coordinators of vocational education for more than one building. This calls for an ability to schedule their activities and develop interpersonal relations with several principals as well as staff members in those buildings. The role-playing situation can be used to alert new coordinators to problems they are likely to encounter.

ADVANTAGES

As it relates to the product. The role-playing activity may make it possible to anticipate problems in the implementation process. This should result in better understanding of the product and a more systematic implementation process.

As it relates to the client. The preparation and development of staff members contributes to their receptivity to vocational education. It is absolutely essential to assign competent personnel to implementation roles.

As it relates to the advocate. Role playing provides the advocate with a technique for sensitizing individuals for implementation of vocational education activities. It is particularly helpful for staff members who are changing roles.

DISADVANTAGES

As it relates to the product. None.

As it relates to the client. The technique requires careful observation by the supervisor. He or she should look for miscues in the situation and correct the actors accordingly.

As it relates to the advocate. The advocate must be able to determine the individuals most likely to benefit from role playing. This is difficult to do and at times results in sessions that are not helpful.

13. COOPERATION

Cooperation refers to an association of individuals formed for the purpose of achieving joint objectives for common benefit.

DISCUSSION

This association of individuals can be between the advocate and the client or among clients. The reason for cooperating is the implementation of vocational education. Liaison must be built and maintained between the project director and opinion leaders in the client group. Extending cooperation on relatively minor services, e.g., the providing of information on specific topics of interest to individuals, can go a long way toward facilitating the use of vocational education products.

THE TECHNIQUE IN ACTION

Some school districts have banded together to share resources and provide leadership in vocational education activities. Such cooperative endeavors are intended to emphasize strengths and overcome weaknesses present in each individual district.

ADVANTAGES

As it relates to the product. The mutual benefits which accrue during cooperative activities tend to overcome implementation problems and reflect favorably on the product.

As it relates to the client. Cooperation makes available to any individual in the client system resources of other people and school systems. This sharing of information and concern for implementation activities are likely to have a positive effect.

As it relates to the advocate. Cooperation extends the influence of the advocate through a network of individuals and agencies concerned with implementation of high quality vocational education programs.

DISADVANTAGES

As it relates to the product. Cooperation sometimes slows the process of implementation which may cause problems in scheduling the use of the product.

As it relates to the client. At times it may be necessary for the client to give priority to another party's concern for implementation problems. This disadvantage is offset by the probability of the advisor gaining insight on how to improve the implementation of vocational education.

As it relates to the advocate. The primary difficulty in using cooperation as a technique is the amount of time required to coordinate and supervise cooperative activities. It would be possible for the advocate to become so involved in cooperating with other people that implementation objectives would not be met.

14. STAFF DEVELOPMENT

The acquisition of new skills necessary to accommodate the innovation is the intent of this technique.

DISCUSSION

Any new idea, product, or material usually requires skills not present among existing staff. Rather than dismissing staff and hiring new personnel, it is usually more efficient and effective to upgrade selected individuals in their position. The staff development workshop is an excellent tool for explaining vocational education and conducting instruction on a day-to-day operation of the product. Long-term investments in staff development could best be handled through credit courses or other programs designed for the continuing improvement of staff capabilities. Summer workshops, as well as inservice professional days during the school year, provide opportunities for staff development. Frequently, in large school systems, staff members work together to learn new roles associated with the innovation. This subsequently boosts morale in many cases.

THE TECHNIQUE IN ACTION

Vocational education often includes coordination of employer-based work experiences with the school program. Many teachers have not been exposed to the world of business and industry. It may be desirable to conduct an inservice training workshop on the coordinator's role in vocational education.

ADVANTAGES

As it relates to the product. Staff developmeht activities create a better understanding of concepts and improve capability for implementing vocational education activities.

As it relates to the client. This technique assures staff time is allocated to the development of professional competence. This can become extremely important to the coordinated use of selected aspects of vocational education.

As it relates to the advocate. A staff development workshop provides the setting for the advocate to promote the product and instill the desire to use it. In addition, staff development activities may take the form of adaptation of the product to local conditions. The setting also provides the opportunity for using consultants and experts to demonstrate selected aspects of vocational education.

DISADVANTAGES

As it relates to the product. The staff development session may be too brief to allow a good understanding of the product.

As it relates to the client. Staff members may not attend the workshop. It may require credit or pay for the extra hours invested in the workshop. Staff may not see the need for this activity, or they may feel that the existence of the workshop indicates their present activities are not acceptable.

As it relates to the advocate. Staff development activities require time and resources in their preparation. The advocate may not be able to schedule staff development work after school hours or at times when teachers are available.

15. DIFFERENTIATED STAFFING

Differentiated staffing refers to the assignment of differential duties and responsibilities among the product implementation staff members.

DISCUSSION

This management technique uses professionals, technicians, and laypersons in a manner which is consistent with their knowledge, experience, and capability. Specialized tasks are assigned to different members of the team. This placement of responsibility brings with it accountability for achievement of these specialized tasks. Also implied is the need for coordination of team members' activities. Under most circumstances, particularly in small school systems, this coordination is the responsibility of the vocational education department chairperson.

THE TECHNIQUE IN ACTION

Differentiated responsibility frequently occurs between building coordinators of vocational education and teachers who are heading a substantive service area. For example, the teacher of home economics would be responsible for integrating vocational education concepts into instructional materials for the grade levels in that department. The coordinator of vocational education would lend advice on the placement of these concepts at specific grade levels. The coordinator would act as liaison between scheduled learning experiences in home economics and other areas of the students' curriculum, e.g., science, mathematics, and English.

ADVANTAGES

As it relates to the product. Differentiated staffing provides a means of marshaling the most competent individuals to implement the product. Each implementation task should be assigned to the appropriate person.

As it relates to the client. Teachers and administrators know who is responsible for achieving specified implementation tasks. Each person assigned should be the "best" qualified person to perform the duties; this should lead to increased job satisfaction.

As it relates to the advocate. Differentiated staffing allows the advocate to refer questions and inquiries to appropriate individuals. Competent, responsible team members should make the tasks of advocacy easier.

DISADVANTAGES

As it relates to the product. Individuals may become so specialized that they lose a sense of balance for implementing the complete vocational education product.

As it relates to the client. It may become difficult to reach the project director if bureaucratic channels are maintained. Likewise, it may become necessary to contact several individual project staff members before an inquiry is fully answered.

As it relates to the advocate. The vocational education project staff may become so specialized that no one is available to respond to general questions from the community or other sources. Responding to such requests may place an unreasonable burden on the project director.

16. INVOLVEMENT IN PRODUCT DEVELOPMENT

This technique may be defined as the use of local, on-site staff to modify existing educational materials for the purpose of adapting them to local conditions.

DISCUSSION

This technique appeals to the professional dedication and desire of staff members to contribute to the improved education of students. By modifying vocational education products to reflect local standards and conditions, teachers and administrators become drawn into the adaptation activity, thus accepting some of the objectives and goals of the program. The opportunity to create and/or modify an innovation can be used as an incentive for soliciting staff support.

THE TECHNIQUE IN ACTION

Frequently, teachers are asked to revise an instructional package. This opportunity provides them with recognition and influence over instruction which may be used throughout the school district. The development and/or revision of vocational education materials may take place during summer workshops specially designed for teacher inputs.

ADVANTAGES

As it relates to the product. The opportunity for many staff members of a school district to modify vocational education materials or procedures is viewed as a positive technique. The changes in the product should reflect local needs.

As it relates to the client. The revision or adaptation of vocational education materials leaves teachers and others with a sense of pride and ownership of the product.

As it relates to the advocate. Participation of school staff in product development activities creates involvement in the project. Several people working together tend to extend the influence of the advocate.

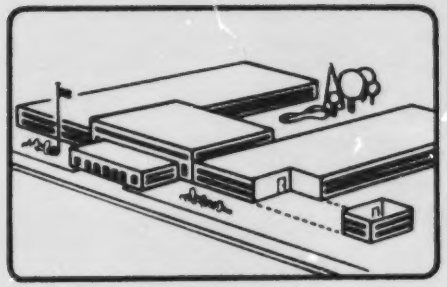
DISADVANTAGES

As it relates to the product. The revision and/or adaptation made by local staff may disrupt the systematic implementation of the vocational education program. In the extreme, changes made in the product could create incompatible situations which destory the original intent of the materials.

As it relates to the client. Teachers and other staff members available to modify the product may lack the requisite experience and knowledge. This lack of capacity within many organizations limits the opportunity to use this technique.

As it relates to the advocate. Time may not allow the optimum utilization of staff to adapt the product. If major modification takes place, the advocate cannot verify the validity and/or reliability of the untested materials.

17. SMALL-SCALE USE OF THE INNOVATION



The intent of this technique is a small-scale commitment of resources (funds or time) by the host site.

DISCUSSION

An implementation strategy which allows a product to be tried incrementally or as segments of a total product is more likely to be successful than an all-or-none implementation approach. It is much easier to add to a project rather than to cut back when unforeseen difficulties arise. Clients need time to become acquainted with a new idea. The ability of an advocate to present vocational education in a clear and immediate manner will enhance the probability of acceptance by the client. Some materials must be used as a unit while others can be segmented more easily.

THE TECHNIQUE IN ACTION

A school superintendent may wish to try innovative vocational education programs in a single school building or area of the district before committing funds to full-fledged implementation. This allows intensive implementation activities in schools with active opinion leaders.

ADVANTAGES

As it relates to the product. The trial use of vocational education activities allows for adaptability prior to a full-scale implementation commitment.

As it relates to the client. Clients have an opportunity to become familiar with vocational education product by product. This procedure reduces confusion and keeps the client from becoming overwhelmed by too much responsibility.

As it relates to the advocate. The initiation of a small-scale implementation activity increases the probability of future growth and tends to mitigate against failure. Schools selected for initial trial use tend to be innovative and accepting of new ideas.

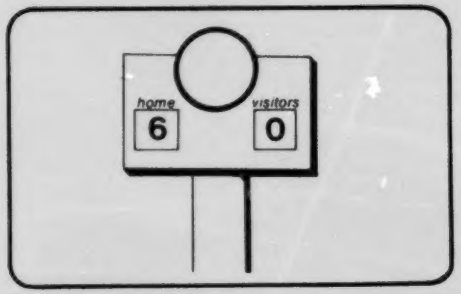
DISADVANTAGES

As it relates to the product. It may not be possible to obtain a clear conception of vocational education by viewing segments in different locations throughout the district.

As it relates to the client. The small-scale use of the product in innovative schools may not be representative of its performance under real world conditions.

As it relates to the advocate. The installation of vocational education pilot projects in several different locations throughout the district may tend to delay the implementation of more comprehensive product implementation activity. The advocate must recognize the artificiality of investing implementation money within very limited scopes of work.

18. COMPETITION



Competition refers to the actions of two or more individuals who are interested in obtaining the same desired objective.

DISCUSSION

The key to the use of this technique is the motivation of the teachers or others who are to be associated with the project. Recognition, financial incentives, or other techniques may need to be used in conjunction with competition. Competition can be used to make people more aware of career education and generate enthusiasm for the implementation activity. Certain prerequisites must be observed: (1) the objectives of the activity must be clear in the minds of those competing, (2) the individuals engaged in competition should have an equal chance for achieving the desired objective, and (3) the results of the competition should be known to all.

THE TECHNIQUE IN ACTION

Competition may be used as a means of selecting volunteer teachers to pilot test vocational education activities in a school building. This assumes the teachers are interested in vocational education and believe they will benefit from their association with the program in some way.

ADVANTAGES

As it relates to the product. The effect of competition upon others usually tends to create a desire to use the product. In this case, a viable vocational education program would be the objective.

As it relates to the client. Teachers and students like to engage in competitive activities. Prizes should be awarded to the winner. Recognition and some prestige should accrue to the participating individuals.

As it relates to the advocate. This technique enables the advocate to select from a broad range of individuals who are interested in becoming a part of vocational education. It places the responsibility for involvement on the client rather than the advocate.

DISADVANTAGES

As it relates to the product. The quality of the implementation activity could get lost in the spirit of competition. The individuals could become so concerned about who was selected for an activity that product quality could suffer.

As it relates to the client. Competition could become so keen as to distract the client from the primary task of using the vocational education materials and procedures.

As it relates to the advocate. The notion of winners and losers is implied in competition. Losers should be compensated with other incentives. The advocate is responsible for assuring this compensation.

19. BARGAINING

This technique usually involves negotiation between two parties, frequently an employer and a union representative, on the exchange of goods or services.

DISCUSSION

In recent years, bargaining has become associated with the renewal of contracts between a teachers' union and a school district. While this is the most frequent use of the technique, selective aspects of bargaining take place in many day-to-day exchanges between the advocate and those near him/her. This technique is used most appropriately when those involved possess an equal power base. Rarely is bargaining effective with a superior or a subordinate; it usually occurs on an organized group basis. The element of compromise is seen as essential in this process.

THE TECHNIQUE IN ACTION

The career education advocate may find it necessary to meet with officials of the teachers' union on days set aside for the inservice education of staff in order to establish vocational education as a high priority. Bargaining could occur over the decision to set aside funds for this activity.

ADVANTAGES

As it relates to the product. None.

As it relates to the client. The use of bargaining in a negotiation frame of reference can be a powerful tool for the promotion of special interests. Teachers and other groups can gain concessions by offering to try new ideas for the school system.

As it relates to the advocate. Bargaining gives the advocate the opportunity to influence a large number of people by negotiating with their representative. Used with discretion, it can be effective in implementing vocational education.

DISADVANTAGES

As it relates to the product. Involvement in negotiation can become so time consuming as to detract from the use of the product.

As it relates to the client. The clients may perceive themselves as "losers" in the negotiation process. This could result in a reluctance to implement the product.

As it relates to the advocate. The client may wish to attack other issues in the negotiation for career education implementation activities. This could confuse the situation and tend to reduce the effectiveness of the implementation activities.

20. PROMOTION OF THE PRODUCT

This technique contributes to the perceived value of a product by providing information which emphasizes its positive characteristics.

DISCUSSION

The purpose of this technique is to convince the client of the desirability of using vocational education materials and procedures. This is done by supporting claims for the product with factual information as much as possible. Particular aspects of vocational education may be emphasized as a unique solution to a local problem. This promotion may take the form of endorsements by credible sources of information. Community leaders, school officials, and students are effective promoters of the product.

THE TECHNIQUE IN ACTION

Promotion of the product through leaflets, posters, mass media announcment, and other forms of written/verbal materials is most effective in creating awareness of vocational education concepts and procedures.

ADVANTAGES

As it relates to the product. Promotional materials such as well designed brochures and posters tend to leave positive impressions of vocational education in the mind of the reader.

As it relates to the client. Most people welcome the opportunity to gain more information and insight into an innovation.

As it relates to the advocate. Promotional materials make the job of the advocate easier. Leaflets may be left with an audience after a presentation to help them think about the product.

DISADVANTAGES

As it relates to the product. Usually the message is standardized, allowing a minimum opportunity for unique applications of the product to a local setting.

As it relates to the client. The promotional materials may raise the clients' expectations for high performance. Clients may be somewhat suspicious of a large amount of promotional information.

As it relates to the advocate. It may be not be possible to anticipate exactly those aspects of vocational education that are likely to appeal most directly to clients' values and needs.

21. ENDORSEMENT BY AUTHORITIES

This technique is designed as an expression of approval of the innovation by persons who are respected by members of the user audience.

DISCUSSION

Authority may be derived from an official position such as that held by a school principal or from informal associations of the type exhibited by an opinion leader. Individuals frequently make decisions on the strength of recommendations from their friends. Persons with high credibility are capable of lending intellectual and social support to users of vocational education. Teachers and others in the school system need to be reminded periodically of the importance placed on vocational education by the superintendent and building principal.

THE TECHNIQUE IN ACTION

One way to gain the confidence of local business persons in the community is to obtain the endorsement of a civic organization. Such action seems to legitimize vocational education activities in the community. Another example of the use of this technique is the selection of respected teachers in school buildings to try innovative vocational education activities.

ADVANTAGES

As it relates to the product. The product is likely to receive more consideration by users if they know it has the approval of authorities.

As it relates to the client. The use of credible individuals in the development and adoption of vocational education materials tends to develop confidence in the client. They feel free to express their concern to the opinion leaders.

As it relates to the advocate. The endorsement of the product by respected individuals extends the network of advocates. It makes the implementation task easier and broadens the base of support for vocational education.

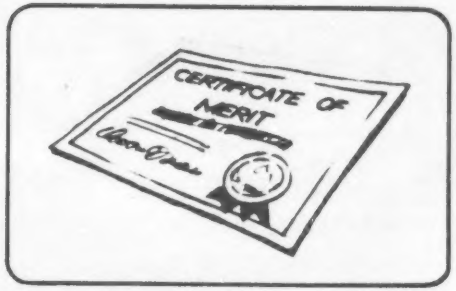
DISADVANTAGES

As it relates to the product. The product may be rejected without receiving due consideration if the endorsements are perceived as directives.

As it relates to the client. The intended users of the innovation may not agree with the comments and opinions of authorities. The clients may not perceive the endorsers as members of their group.

As it relates to the advocate. It may take time to identify the appropriate opinion leaders in the client group. The opinion leaders and other authorities may not be willing to give their full support to the innovation.

22. RECOGNITION OF TRIAL USERS



This technique refers to the special attention given to early users of the innovation.

DISCUSSION

Every individual wants to be respected by others. This desire sometimes motivates them to volunteer for assignments that contain a certain amount of risk and uncertainty. Individuals who perform well under these conditions deserve recognition as early users of vocational education materials and procedures. This technique goes hand-in-hand with other techniques listed in the publication, such as the solicitation of volunteers who are competing for the privilege of being involved in the project.

THE TECHNIQUE IN ACTION

There are many ways to recognize the contributions of those involved in vocational education: (1) their work could be displayed on bulletin boards, (2) articles about their vocational education activities could be published in the local newspaper, or (3) they could be asked to demonstrate exemplary vocational education practices to other teachers in the district.

ADVANTAGES

As it relates to the product. If participants in vocational education like what they do, and are recognized for it, the quality of their performance should contribute to the effectiveness of the product.

As it relates to the client. Recognition gives the client a sense of pride and confidence in themselves. It should be consistent with peer group expectations of the individual.

As it relates to the advocate. It provides the advocate with an avenue for rewarding outstanding performance. Such recognition tends to influence other persons in the district thus establishing expectations for high performance on the project.

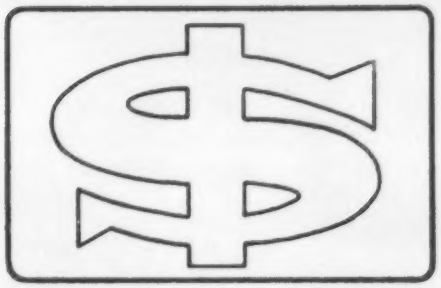
DISADVANTAGES

As it relates to the product. This technique can be overdone. The time spent on congratulating project staff could detract from product development and implementation activities.

As it relates to the client. Some clients may feel the recognition is not merited or tends to downgrade the contributions of other staff members.

As it relates to the advocate. The technique could be time consuming. Fair judgments about the contributions of staff members must be made.

23. FINANCIAL INCENTIVE



Financial incentive is the use of money to encourage involvement in some activity or program.

DISCUSSION

Implicit in this technique is the concept of "pump priming." This is the use of initial funds to encourage use of products and materials for a short time. Another approach is the use of funds to match state or federal monies. Most individuals require some incentive for involvement in any new activity. Innovations in vocational education ask teachers and administrators to invest time after school and on weekends to develop and implement new ideas. This time should be compensated with rewards (recognition or money).

THE TECHNIQUE IN ACTION

Funds may be used to pay substitute teachers for classroom activities during the development and/or modification of vocational education materials. Funds are necessary if teachers are to be transported to other sites when viewing vocational education activities.

ADVANTAGES

As it relates to the product. Priorities should be place on those activities most essential to product development and implementation. One way to do this is to budget funds for staff inservice activities.

As it relates to the client. Financial incentives serve to motivate individuals to excel in performance. Funds should be available for instructional materials or other needs of clients who perform on assigned tasks.

As it relates to the advocate. Financial incentives may be used selectively for high priority tasks. Some budget flexibility should be maintained when implementing vocational education materials.

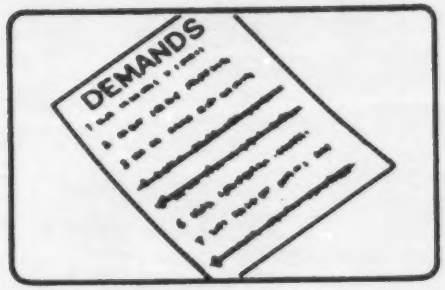
DISADVANTAGES

As it relates to the product. Monies diverted to implementation activities are not available to further develop and refine the vocational education procedures and materials themselves.

As it relates to the client. Individuals may not be available to take advantage of the monetary remuneration paid for additional work performed.

As it relates to the advocate. The advocate may not have the authority to spend money from selected categories of the budget.

24. OVERSTATEMENT



Overstatement is the deliberate use of strong demands in an effort to gain an advantage over competing courses of action.

DISCUSSION

This technique is designed to influence others by citing extreme examples of the need for the product. Overstatement is most often used in negotiations to bargain for power. Frequently, it becomes necessary to compromise with the other side. This is particularly true if the overstatements are not reasonable. You should be prepared to back down on your demands in the interest of moving forward with product implementation activities. By relaxing your demands, you can gain credit from the other side and reach a compromise solution to the problem.

THE TECHNIQUE IN ACTION

The inservice education specialist may describe in detail the knowledge and skill needed by staff when bargaining with the representative of the teachers' union for inservice time with teachers. Teachers' professional days on the school calendar are limited; usually, negotiation is required to obtain these days to address specific topics.

ADVANTAGES

As it relates to the product. This technique tends to place the product in its best light. Overstatement of the need tends to increase the desire of the client to install the product.

As it relates to the client. None.

As it relates to the advocate. Overstatement gives the advocate an initial advantage in negotiations; however, this advantage may be diminished when the other side realizes the advocate is willing to compromise his position.

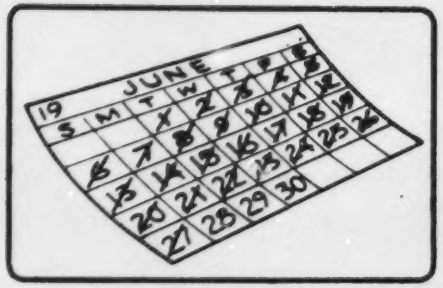
DISADVANTAGES

As it relates to the product. Overstatement of need for the product may create an unrealistic expectation for what the product can achieve.

As it relates to the client. The use of overstatement by an advocate places the client at a disadvantage because the client does not know what to believe. This delusion is reinforced when the advocate backs down from the previous position.

As it relates to the advocate. Overstatements about the need for the product must be carefully timed to be effective. The advocate may misjudge the readiness of the other side to compromise.

25. DEADLINES



This technique sets a date or a time as a means of scheduling implementation processes.

DISCUSSION

This technique assumes that the advocate has the authority to establish deadlines. Their enforcement can be a problem because unforeseen circumstances tend to interrupt scheduled activities. Nevertheless, the technique is useful for planning purposes. The deadline encourages users to pursue project goals, and it establishes a mechanism for accountability. *Realistic* timetables are essential. Deadlines are of little value unless they are maintained.

THE TECHNIQUE IN ACTION

The development of vocational education materials usually requires advice from a number of people. The deadline may be used to curb extensive committee work. It serves to orient individuals to tasks and sets expectations for the completion of products.

ADVANTAGES

As it relates to the product. The deadline provides target dates for incorporating vocational education into field sites. It can serve to increase product effectiveness if sufficient time and money have been allocated for implementation tasks.

As it relates to the client. Time deadlines can orient clients to tasks. Realistic due dates can pace the work load toward the completion of tasks.

As it relates to the advocate. Advocates can use time dealines as a mechanism for monitoring the implementation of products and procedures. Deadlines can serve to highlight areas of need for more funds or attention in the implementation process.

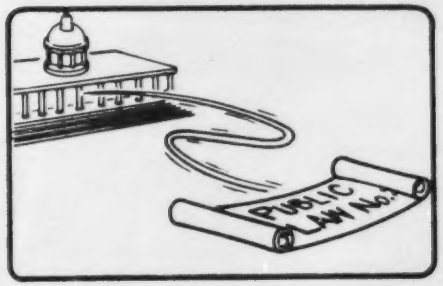
DISADVANTAGES

As it relates to the product. The deadline may be superficially imposed without regard for the nature of the task. Product development may falter in order to give the appearance of meeting implementation deadlines.

As it relates to the client. If the deadline is unrealistic, the client is likely to object. The deadline does not intrinsically contribute to the implementation process. It does serve to alert the clients as well as others to the progress of the implementation activity.

As it relates to advocate. Anxiety levels for the advocate's staff are likely to increase if deadlines are not met. It may become necessary to adjust deadlines in view of unforeseen circumstances.

26. LEGAL MANDATE



This technique is defined as an authoritative command as in a school board decision, legislative enactment, or judicial decision.

DISCUSSION

Compliance with this command is expected. Legal sanctions may be imposed for the purpose of implementing innovations. The mandates are most often given by local, state, or national governments. They are sometimes enforced through court actions or by relating reimbursement policies to compliance with the mandate. The legal mandate is most effective when rapid use of an innovation is essential.

THE TECHNIQUE IN ACTION

Legislative mandates at the national and state levels established relationships between vocational education agencies and community-based organizations. The effectiveness of these relationships depend on the spirit of cooperation among people in these agencies.

ADVANTAGES

As it relates to the product. It assures some implementation of vocational education practices by a specified date. Usually, such mandates are not related directly to a particular product. Adaptations of the product may occur as needed.

As it relates to the client. The legal mandate sets expectations for use of the product. It gives the client a date for the completion of implementation activities.

As it relates to the advocate. The use of legal commands generally can assure minimum compliance. The advocate must use this technique carefully to minimize resistance.

DISADVANTAGES

As it relates to the product. Rapid implementation of vocational education activities to comply with legal requirements may result in the superficial acceptance of underlying concepts. The mandate may not allow sufficient opportunity to test and develop activities on site.

As it relates to the client. Clients may perceive that their freedom to reject the innovation has been diminished. Therefore, they may resist use of the product.

As it relates to the advocate. It is very difficult to ensure acceptance of vocational education through legal mandates. Usually, the advocate cannot sufficiently supervise educators to determine if appropriate materials and procedures are being used in educational activities.

27. FAIT ACCOMPLI

The decision to use a product, and consequently make changes without consulting users in advance, is the meaning of this technique.

DISCUSSION

A "fait accompli" implies the need to overcome time delays and any potential resistance by assuring the implementation of a product. This may be effective in the short run; however, it tends to generate feelings of helplessness and contributes to a poor self-image among clients. The implementation of a product in this manner raises questions about its survival whenever supervisors are not present to observe staff behavior. It is an authoritarian technique which has limited application in the school system.

THE TECHNIQUE IN ACTION

Sometimes, superintendents of school districts and other administrators make commitments to outside agencies which involve school principals and teachers without informing them in advance.

ADVANTAGES

As it relates to the product. This technique promotes immediate use of the product.

As it relates to the client. Clients are immediately aware of their obligations and involvement in vocational education.

As it relates to the advocate. If the technique is successful, it reduces or eliminates the need for advocacy. The time required for collective decision-making is reduced.

DISADVANTAGES

As it relates to the product. The product may not receive due consideration by users if they are left out of the decision to accept it.

As it relates to the client. Clients may reject a product if they perceive it to be forced upon them. This may result in sabotage or other indications of resistant behavior.

As it relates to the advocate. This technique may create resistance which can lead to confrontation between teachers and administrators. The advocate is placed in a mediating role which is untenable, because he or she has no authority to allow changes in product implementation practices.

28. STRATEGIC REPLACEMENT OF STAFF

Strategic replacement is the substitution of staff members in a key position to improve project effectiveness.

DISCUSSION

The dismissal or transfer of staff to other buildings sometimes allows a vocational education project director to make up for lost time in an installation activity. This technique assumes the advocate has the authority to reassign or otherwise remove staff from their present position. Therefore, it is difficult for the subordinate to use this technique for persons who are supervising their work. The replacement of staff has serious and major consequences on the installation progress of innovations. It should be seldom used and then only with discretion. When project staff are changed, a new influence network among clients must be established. This may result in time delays and other disadvantages to the systematic use of vocational education products.

THE TECHNIQUE IN ACTION

If a vocational education building coordinator has not been effective in gaining the confidence of the teachers and others who should use products, then he or she should be replaced. The vocational education director should check with the building principal and others in advance of the decision concerning who would be affected by the replacement.

ADVANTAGES

As it relates to the product. When necessary, the replacement of staff facilitates the implementation of the product in a client setting. Hopefully, the new staff member is familiar with vocational education and can do a better job of communicating its virtues to clients.

As it relates to the client. The replacement staff member should be more knowledgeable about the client, thus potentially more effective than the previous individual.

As it relates to the advocate. When it becomes necessary to replace a staff member, it should be done quickly to facilitate cooperation among project team members.

DISADVANTAGES

As it relates to the product. The replacement of a key staff member may delay implementation procedures temporarily, thus product utilization may take place slowly during this period of transition.

As it relates to the client. The client must become acquainted with another person when staff members are replaced. This takes time! Old loyalties to the replaced person may become obstacles to future progress.

As it relates to the advocate. The replacement of a key staff member usually causes disruption and inconvenience in the implementation program. The project director must judge the long range benefits of replacing key staff members when compared to the short run problems of bringing new individuals into the project.

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